A QUALITATIVE INVESTIGATION OF WOMEN ACADEMICS' CITATION EXPERIENCES THROUGH A MARKETING LENS

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By

Miao Yu

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Head of the Department of Management and Marketing
Nutrien Centre, 25 Campus Drive
University of Saskatchewan
Saskatoon, Saskatchewan S7N 5A7
Canada

OR
Dean
College of Graduate and Postdoctoral Studies
University of Saskatchewan
116 Thorvaldson Building, 110 Science Place
Saskatoon, Saskatchewan S7N 5C9
Canada

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ABSTRACT

This qualitative research aims to provide a unique angle to examine and contribute to a controversial topic—gender gap in citation. Some research has concluded that women tend to cite themselves less than their male colleagues do, while other research has argued that the gender gap in self-citation does not exist at. This study fills the gap by taking an Interpretative Phenomenological Analysis (IPA) approach to explore how women academics experience and make decisions of whether to cite themselves or not. The nature of academia requires academic researchers to create and disseminate knowledge. From a marketing perspective, academics are like entrepreneurs because they must generate and market their own work. By investigating the motivations and tensions around self-citation using in-depth interviews, this study also explores female academics' self-branding strategies and their current career environment in the academy. This study not only serves academics by investigating a mundane but influential aspect of academic life, but also helps non-academic stakeholders, such as policy makers and academic administrators, by providing the language and framework to understand women's career strategies.

Table of Contents

1. Introduction

As more women are stepping onto the exciting road of academic adventures, they might not have been warned about some hidden obstacles that they could face while climbing the academic ladder. Though the external environment is morphing or at least marching towards a gender-neutral system, the entrenched value in the system is still disproportionately favoring and rewarding men (Handley, Brown, Moss-Racusin, & Smith, 2015; Rudman, Moss-Racusin, Phelan, & Nauts, 2012).

Academics do not need to look far to find evidence of gender biases that influence their academic standing in the field. Citation behavior, particularly self-citation behavior, reveals a great gender gap between men and women academics. In a study that analyzed 1.5 million papers published in JSTOR between 1779 and 2011, King et al. (2017) found that men cited their own work 56% more than women did. Even with more women entering the academic field and publishing more papers, this gender gap shows no sign of slowing down. In the last two decades, men self-cited 70% more than women did (King et al., 2017). Men's higher self-citation rate has been found in smaller-scale studies as well (Maliniak et al., 2013; Ioannidis, Baas, Klavans, & Boyack, 2019; Larivière & Costas, 2016). However, some studies argue that the gender gap in citation does not exist at all, and that the gender variations found in the aforementioned studies were negligible after taking account of covariates that could influence per-paper citation counts (Andersen et al., 2019; Azoulay & Lynn, 2020).

Despite the existence of gender gap in citation or not, investigating academics' perceptions and experiences of citation will provide valuable insights to help policy makers, employers, and academics reflect and improve on academics' experiences in the field. It is important to scrutinize citation indexes which are frequently used to evaluate researcher productivity and academic success. More importantly, citation indexes greatly impact researchers' opportunities to access funding and promotion (Flatt, Blasimme, & Vayena, 2017; Seeber, Cattaneo, Meoli, & Malighetti, 2019). Since the literature suggests that women self-promote less than men do (Maliniak et al., 2013) and that it often backfires when women do choose to self-promote (Sanchez, Chaney, & Maimon, 2019), it is meaningful to reality check and learn from women's lived experience—in this case women academics' lived experience of self-citation—to properly and more comprehensively understand women academics' rationale and strategy for self-citation. This study will fill the gap in the citation and knowledge marketing literature; to the best of my knowledge, there has been no qualitative empirical study to investigate researcher's citation behaviors.

In addition, this research benefits academics who regularly make citation decisions by understanding how female academics market their previous work. By diving into female academics' citation experiences and dissecting the underlying decision-making process, this research could lead to a framework that helps academics to evaluate and adjust their citation habits or other self-promotion strategies related to knowledge dissemination. A well-thought strategy in which academics promote their own research outputs can be beneficial to their careers. Also, it enhances and fulfills their ethical obligation to generate and disseminate knowledge (Murray & Ozanne, 1991).

Next, this research benefits the academy in general by raising awareness around citation behaviors and encourages academics to consider citation and knowledge dissemination from a marketing perspective. Since academics are the building blocks of the academy, a clearer and more mindful citation strategy could help academics to communicate and disseminate knowledge more effectively. Therefore, this research could benefit the academy by fostering effective science communication.

Last but certainly not least, this research could potentially contribute to self-marketing and self-branding theories regarding women's capability and willingness to brand and market themselves and their works. By diving into female academics' personal experiences around factors that influence their citation decisions, this study could reveal the external and internal factors that enable or inhibit them from promoting their work. Insights into these factors are relevant to larger discussions around solutions to gender inequality issues in the academy.

This study takes a qualitative approach to study participants' lived experiences of citation and to extract meaning from their reality. Specifically, this research is guided by interpretative phenomenological analysis (IPA) (Smith et al., 2009), which has been widely used in psychology research to "explore participants' personal lived experience and how they make sense of that personal experience" (Smith, 2004. p 40). Data was collected using semi-structured interviews with female academics who have over five publications in peer-reviewed research journals over the last ten years. These interviews encouraged conversations about participants' perceptions, decisions, and tensions around their experiences of citation to generate rich descriptions and interpretations of female academics' lived experiences on this subject matter. Data were transcribed and analyzed following steps prescribed by IPA methodologists (Smith et al., 2009).

This study explores the intersection of gender, citation practice, and academic career to fill the gap in gender and citation literature using a qualitative approach. The purpose of this paper is to develop a deeper understanding of women academics' experience, perception, and attitudes towards citation and its influence in their careers. This study seeks to answer the following question: *how do women academics experience citation and self-citation in their careers?*

This thesis is structured as follows: Literature Review, Methods, Findings and Discussion, Implications, and Conclusion. The following section presents a literature review of existing research around gender, citation, and self-marketing. The literature review also includes the gap that this thesis addresses and the existing frameworks of self-marketing and self-branding which could potentially benefit this study. The methods section thoroughly describes how I implemented IPA in this study. Next is the findings and discussion section, which presents my interpretation of the research data with evidence in the form of participant quotes. The implication section ties the findings to both practice and theory by discussing how individuals, policy makers, and future research can make use of the finding

2. Literature Review

2.1 Gender and Academia

Historically, the academy is a male-dominated field where female academics are underrepresented, especially in the fields of Science, Technology, Engineering, and Mathematics (STEM) (Casad et al., 2021). Universities and policy makers have made the link between the possibility that gender diversity in academia could improve research performance and creativity (Huyer, 2015; Valatine & Collins, 2015). However, despite the prioritization of promoting equity, inclusion, and diversity in universities, gender parity issues remain a concern in many disciplines, such as archaeology (Overholtzer & Jalbert, 2021), cognitive psychology (Titone, Tiv, & Pexman, 2018; Vaid & Geraci, 2016), geoscience (Dutt, Pfaff, Bernstein, Dillard, & Block, 2016), and political science (Smith, Hardt, Meister, & Kim, 2020). A majority of gender research in an academic setting highlights lower representation of and bias against *women* that are manifested in different aspects of academic careers, such as career entrance (Dutt et al., 2016; Krawczyk & Smyk, 2016) and funding opportunities (Pojani, Olvera-Garcia, Sipe, & Byrne, 2018; Titone et al., 2018), visibility in conferences and publications (Ford, Brick, Blaufuss, & Dekens, 2018; Krawczyk, 2017), and research performance evaluation (Krawczyk & Smyk, 2016). In disciplines where men are considerably under-represented, e.g., nursing and education, the direction of bias changes to negatively affect men instead (Sarna et al., 2020). It is evident that reaching gender equity is a complex task that is dynamic and context dependent, and so are the solutions to achieve such goals in any given contexts.

Academic related gender studies have been repeatedly using the metaphor "leaky pipeline" (Overholtzer & Jalbert, 2021; Schiebinger, 1999; Pell, 1996) to represent the phenomenon of women leaving the academy at different stages of their careers at a concerning, imbalanced rate. Though this metaphor has been criticized for guilting and devaluing women who decided or have been planning to leave academia (Miller & Wai, 2015), it still has benefited the academy by garnering attention and discussions around gender issues and their negative consequences. Undoubtably, it is important to encourage more women and other minority groups to enter academia. But the efforts to attract these groups might go vain if the academy cannot resolve the "leaky pipeline" issue of women leaving just as fast if not faster than academia can replenish.

A consistent finding in the literature highlights the "productivity puzzle" (Cole & Zuckerman, 1984) that men publish more throughout an academic career (Larivière, Ni, Gingras, Cronin, & Sugimoto, 2013), and their works are perceived as more impactful based on longitudinal citation count analysis (Astegiano, Sebastián-González, & Castanho, 2019). The productivity puzzle or productivity and impact gap does not seem to have decreased with time but has paradoxically increased with more women entering and participating in

diversified fields (Astegiano et al., 2019; Huang, Gates, Sinatra, & Barabási, 2020). Simply increasing the number of women academics does not seem to solve the leaky pipeline or the productivity gap issues. Therefore, expanding our understanding of factors that might make academia less appealing for women to stay is essential to achieve and sustain gender equality and equity in academia.

The literature reveals a plethora of explanations and compounding factors that might contribute to women's underrepresentation and halted career advancement in academia. Research points out that differences in family responsibilities (Carr et al, 1998; Fox, 2005), administrative duties (Duch et al., 2012) and career absence (Cameron, White, & Gray, 2016) are some explicit factors that often cost women resources, particularly time, that they could otherwise spend on researching and generating knowledge. These factors could be the low-hanging fruits that policy makers and academic administrators could address immediately. However, it is crucial to monitor and be cautious of possible counterintuitive outcomes after implementing policies that intend to help academics to improve productivity. For example, Feeney, Bernal, & Bowman (2014) investigated how improvements in university family-friendly policies affect academics' productivity. On a positive note, both male and female academics reported increased productivity in forms of journal publications and balancing research-teaching demands with improved family-leave policies, e.g., paid maternity, paternity, adoption, and paternal leave. However, increased on-site daycare accommodations differently affected male and female academics. Comparatively, male academics increased journal publications, while female academics faced increased teaching demands because of the availability of on-site daycare. In addition, there are more implicit and systematic factors that affect academics' performance and how they have been evaluated, such as gender differences in network and collaboration habits (Uhly, Visser, & Zippel, 2017), stereotypic gender roles (Eagly, Nater, Miller, Kaufmann, & Sczesny, 2020), bias against women during evaluation (Krawczyk & Smyk, 2016), and bias within evaluative metrics (Cameron et al., 2016).

As discussed above, scholars have approached academic gender inequality issues from sociological, psychological, policy making, and scientometrics perspectives, with the latter continuously gathering attention in scientific conversations. Scientometrics research has been leading the evaluation trend in academia since the discipline's invention. Though there has been much discussion around their effectiveness, objectivity and freedom from bias, citation metrics, especially the h-index, remain the most used academic impact evaluation measures (Cameron, et al., 2016).

Recently, there is a growing debate around gender effects in citation impact and whether citation metrics are favorable towards one gender over the other. In a study that analyzed 1.5 million papers published in JSTOR between 1779 and 2011, King, Bergstrom, Correll, Jacquet, and West (2017) found that between 1779 and 2011, male academics cited their own work 56% more than female academics did. King et al. (2017) argued that male academics set their own citation impact record high by self-citing more frequently. Even with more

women entering the academic field and publishing more papers over the years, this gender gap shows no sign of slowing down. According to King et al. (2017), between 1991 to 2011, men self-cited 70% more than women did (King et al., 2017), suggesting that the gender gap in self-citation behavior is even growing. Men's higher self-citation rate has been found in smaller-scale studies as well (Maliniak, Powers, & Walter, 2013; Deschacht & Maes, 2017; Ioannidis, Baas, Klavans, & Boyack, 2019; Larivière & Costas, 2016). The seemingly gendered self-citation trend jeopardizes the ideals of fairness claimed by citation metrics (Flatt et al., 2017). Most importantly, the gendered self-citation habit challenges the ideals of fairness of the academic environment. Afterall, self-citation not only directly affects academics' citation index, but may also influence academics' visibility and recognition in academia. In an environment where women academics are already disadvantaged, the gender effect or difference in self-citation behaviors is concerning because it represents lost opportunities for women to increase visibility and recognition.

In contrast, some studies argue that the gender gap in citation impact does not exist at all, or citation metrics are in fact not biased towards men (Nielsen, 2016; Slyder et al., 2011; Symonds, Gemmell, Braisher, Gorringe, & Elgar, 2006). Most of these studies focused on citation distribution in terms of gender representation, while self-citation is often applied as a covariate to test its influence on citation impact of different genders. For example, Andersen et al. (2019) found that self-citation and journal prestige accounts for the negligible differences in citation distribution between male and female; once these two factors are not controlled for, male and female academics' per-paper citation impact is near identical, suggesting that citation impact is not biased towards any gender.

Notably, all debates are centered around whether the gender gap in citation behaviors and outcomes exist or not, but the literature around how academics think of and strategize citation and self-citation is lacking. Previous research suggests that citation and self-citation behaviors have some effect on academics' citation impact (Anderson et al., 2019; King et al., 2017). Therefore, it seems important to understand academics' motivations for citing oneself over others, and how academics learn of, practice, and adjust their citation practices to depict the meanings of citations to academics. To the best of our knowledge, there is no study that specifically investigates women academics' citation experience. This study fills the gap by uniquely exploring citation and the self-branding strategies and challenges faced by women academics in their careers.

2.2 Citation

The academy has been seeking to improve measures to evaluate academics' work quality, productivity, and impact, though definitions of these differ based on disciplinary and institutional expectations and requirements because of the lack of consensus on what true value and impact means in scientific work. However, all disciplines share the commonality of citation, a building block in the ever-expanding body of science (Price, 1961). Citation is the most essential way to claim priority and signal ownership of scientific result (Kaplan, 1965;

Ravetz, 1971; Vinkler, 2010). Therefore, it is natural for the academy to have turned to citations and references to trace, describe, and evaluate academic performance and impact.

It is worth noting that the terms—reference and citation, though occasionally used interchangeably—are inherently different. An author obtains (a) citation(s) passively, but gives references actively to others by coupling the referencing and referenced bodies of information (May, 1966; Porter, 1977). According to Vinkler (2010), the use of *reference and referencing* is recommended when viewing from the point of the author who is publishing, whereas *citation and cited* is recommended when viewing from an impartial observer or the referee who the author referred to. To clarify, this paper uses the term citation, a singular noun, to represent and describe a single point of citing or cited, depending on which point of view one takes; while references is used as a plural noun representing the entire bibliography in a single paper. This paper uses citation as the unit that builds the references.

Due to citation's unique and essential role in science, reference quality has long become an important component of paper quality assessment (Callaham, Baxt, Waeckerle, & Wears, 1998). Reference serves as a vault of resources which would benefit readers needing to find relevant research. Moreover, reference is a signal of recognition. In a study concerning the nature and function of references, 95% of journal editors and editorial advisory board members surveyed reported that referencing is one way that academics equitably distribute recognition (Cronin, 1982). Cronin (1982) noted students—who are the future academics and authors—often learned about citation conventions osmotically. There seems to be a need to regulate and guide how and what academics use as reference. But Cronin (1982) also noted that both the creation and usage of such guidelines could be problematic; rather, an emphasis on encouraging intelligent selectivity on the author's part should suffice and serve the purpose of guiding readers' attention to relevant work.

Despite the challenges, researchers have still come up with frameworks to help evaluate and gauge reference and citation quality. Existing literature on reference and citation evaluation suggests that the number (McCain & Turner, 1989), location, centrality, relevancy (McCain & Turner, 1989; Maričić, Spaventi, Pavičić, & Pifat-Mrzljak, 1998), and up-to-datedness (Seglen, 1996) of a citation are the key properties that affect reference quality within the context of paper quality evaluation. McCain and Turner's (1989) citation context classification scheme is a great example of a reference evaluation framework. In their Utility Index (UI) Model, McCain and Turner (1989) specified that the number of citations, the different locations of the citation within an evaluated paper (e.g., introduction, literature review, and discussion), the weight of each citation whether being central or peripheral, as well as the explicit link between author(s), source paper author(s), and the institutions where these authors work collectively influence the final result of reference quality evaluation. Though the UI model has served the academy as a clear reference evaluation framework, its impact is not as influential as that of citation indexes.

Bibliometrics

The idea of citation indexes for science was first proposed in 1955 by Eugene Garfield who drew inspiration from the Shepard's citations (1873) in law to create a similar documentation system that associates ideas together by subjects. Garfield (1955) initially envisioned that the new citation system would allow researchers to find relevant criticisms of precedent papers more easily and would ultimately facilitate science communication and discovery, but not necessarily be a performance evaluative tool.

The Institute for Scientific Information (ISI) —now part of Thomson Reuters— was founded by Garfield in 1961. This ISI was mainly used by scientometric experts initially, but with a growing trend in need to measure research value and impact in the 1980s due to evolving approaches in public management, especially in the UK and US (Etzkowitz, Webster, Gebhardt, & Terra, 2000), the ISI and scientometrics were slowly picked up and used by the broader academic community. Research policy and management had gone through strategic reforms in the 1990s, leading to a greater use of bibliometric indicators, including Journal Impact Factor (JIF) scores.

Over the years, Garfield's creation of the three most widely used citation indexes in the academic world—the Science, Humanities, and Social Science Citation indexes, citation index systems have gone through multiple evolutions and expansions with time and development of database technology. Made possible by the invention and development of citation indexes, citation analysis has been used to produce measures of scientific performance of articles (Fenner, 2013), individuals (Ioannidis et al., 2019), journals (Pendlebury, 2009), department or institutions (Hossain & Ahmed, 2020), and even nations (Leydesdorff, Bornmann, & Wagner, 2019). Currently, there are plenty of citation indexing services readily available online. Web of Science (WoS) by Clarivate Analytics was available since 2001, Scopus by Elsevier became available in 2003, followed by Google Scholar in 2004. The rapid advancement of online databases inevitably led to an era in which citation is incorporated in every phase of a researcher and academic's life.

In addition to the effect of increased accessibility of online citation databases, J.E. Hirsch's invention of the Hirsch or h-index pushed a surge of interest in author level metrics (Wilsdon et al., 2015), as well as a blooming trend of metrics innovation. The research assessment realm is facing an ever-expanding menu of indicators, metrics, and assessment methods to choose from (Wilsdon et al., 2015). Still, researchers are demanding and developing metrics that are more comprehensive and transparent (Flatt, Blasimme, & Vayena, 2017). Measurements that are the most popular and current include citation impact or citation count, bibliometrics such as h-index, i-index, G-index, altmetrics, and the list goes on. These metrics differ depending on their unique calculation method and how they capture academics' impact. For example, citation impact is the numerical count of citations of a paper, an individual, or a department. H-index accounts for a scholar's number of publications and how many times each paper was cited (Hirsch, 2005). In contrast, the altmetrics, or alternative metrics, cover not just citation counts, but also other measurement of research output and

impact, such as social media shares and downloads, which are not considered in the traditional citation metrics.

Standardizing academic performance by implementing citation analysis and citation metrics has become a norm in most disciplines and institutions, making citation metrics an important factor that affect academics' career opportunities, rewards, and reputation (Hyland, 2003; Adler, 2009; Ioannidis, Boyack, & Wouters, 2016). Citation advocates describe citation analysis and metrics as the objective alternative to any subjective evaluation and consider citation metrics concrete and not anecdotal (Moed, 2006). Indeed, citation metrics make ranking papers, individuals, institutions, even countries possible and accessible. In fact, reducing complexity is the primary functionality of citation metrics that appeals to science policymakers and administrators (Cronin & Sugimoto, 2014). However, citation metrics are in no way near a fool-proof or unbiased measure.

The objectivity and benefits of citation analysis and metrics have often been criticized on the grounds of what citation metrics claim to measure and what they have been used for. Garfield (1978) asserted that citation count of any given paper is by no means an indicator of the intellectual significance or importance of the work; rather, citation count is simply a pragmatic measure of utility that depend on the mechanics of compiling citation data. Studies have shown that journal and author prestige can affect a paper's citation count with the assumption that higher prestige journals and authors naturally gather more visibility (Andersen et al., 2019; Vinkler, 2010). In addition, paper types, such as review, methodological innovation, scale development, trendy topic papers get cited more (Tahamtan, Askar, & Khadijeh, 2016). As MacRoberts and MacRoberts (1996) have pointed out, citation analysis rests on the assumption that the number of citations received by an article reflects its influence because authors are all motivated to credit or to acknowledge their influences, i.e., to give credit where credit is due. This assumption, among many others, is clearly testable. Bavelas (1978) identified that besides the motive to cite someone's work because of scholarly impact, people also cite for social psychological motives, namely, to demonstrate that the author understands and is aware of the core literature in the research area. The complexity of motivations behind a citation decision makes it difficult to distinguish the true outcome of what citation counts actually measure—is it scholarly impact or social consensus in the form of popularity?

Some mixed effects of the generalized use of citation metrics as evaluation tools have been documented. Several studies (Butler, 2007; Colwell et al., 2012) note a shift in academics' strategic goals and behaviors from attaining a certain performance level to scoring high on citation measures. In an Australian study about the introduction of performance metrics in research funding allocation, Butler (2008) reported that the behavior and goal shift resulted in a sharp rise in publication quantities on a broad level, but the overall scientific impact dropped during the same period. Moreover, publishing in high impact journals takes priority for many academics, resulting in task reduction in non-publishing related types of work, such as teaching, service, and outreach (Laudel & Gläser, 2006; Van Dalen & Henkens, 2012;

Wilson & Holligan, 2013). Lastly and most importantly, citation metrics have been obscurely shifting knowledge production by influencing academics' risk-taking behavior when selecting a research topic (Laudel & Gläser, 2006) and publication outlet (Anderson, Narin, & McAllister, 1978).

Further, using citation metrics as evaluative tools has been criticized for incentivizing academics to game the system in the form of citation farming (i.e., a group of authors intentionally and massively cite each other's work) and overuse of self-citation (Ioannidis et al., 2019). Before discussing what self-citation is and how it influences citation metrics on an individual and metrics level, I will describe a paper's general life cycle of citations.

Citation Lifecycle

After a journal article is released, it goes through a life cycle following a standard path. The number of citations to any journal article generally increases during the first few years after publication; then it reaches a maximum, followed by a decline, inevitable to the fate of being gradually forgotten (Glänzel & Schoepflin, 1995). The lifespan of a journal paper seems to be field specific. More specifically, an article's citation per year tends to peak earlier in natural and life sciences while later in social sciences and mathematics (Lavigne & Good, 2017).

However, not all journal papers fall into the maturing and declining patterns described above. Scholars have identified two types of outliers— "Sleeping Beauties" and highly cited articles. Van Raan (2004) defined Sleeping Beauties as articles that were initially very poorly cited if at all then suddenly picked up steam and were very highly cited. According to Glänzel and Garfield (2004), the actual delayed recognition papers are extremely rare, representing only 0.01% of all published papers. And the belated and sudden recognition does not happen by chance. A closer investigation of Sleeping Beauties articles by Braun, Glänzel, and Schubert (2010) revealed that these papers were usually "awoken by a prince" ten years after publication. The 20% success of Sleeping Beauties articles (Braun et al., 2010) is decent in comparison to the harsh reality that most journal articles remain asleep throughout their lifespans (Aksnes & Sivertsen, 2004). Highly cited papers, on the other hand, are influential outliers to the overall citation distribution since most published journal articles do not get cited at all. Citation distribution is highly skewed (Price, 1965; Seglen, 1992) to the degree that a limited number of the most cited papers are substantial enough to alter national citation impact indicators significantly (Aksnes & Sivertsen, 2004). Seglen (1992)'s study revealed that a mere half of the most cited articles account for over 90% of all citations to a journal. Lastly, because highly cited papers naturally gather exposure which further feeds into the paper's accumulative advantage, they usually have a longer lifespan and reach their maximum later in the cycle (Vinkler, 2010).

Self-citation

Self-citation *can* be the kiss that wakes up the sleeping beauty, garnering the initial attention for a paper that could otherwise gone unnoticed. But since most published papers do not get

cited at all (Aksnes & Sivertsen, 2004), it seems that most scholars are unaware of the potential benefits of citing themselves to get the snowball rolling.

In fact, self-citation does not have to be initiated directly by the author. Ioannidis (2015) categorizes self-citation into four main types, including direct, co-author, team-based, and coercive induced self-citation. Direct self-citation occurs when an academic publishes a paper that references one or more of their previous publications. From a reader's point of view, direct and co-author self-citation might look the same because it is difficult to determine the author or group of authors who initiated the self-citation decision. Team-based self-citation occurs in a collaborative environment usually involving an overarching project with different, non-overlapping groups of authors working on the same project (Ioannidis, 2015). Self-citation in team-based contexts thus happens when different groups of authors cite the other group's previous or working paper. Lastly, coercive induced self-citation is usually a result of power differences between parties. For example, induced self-citation can happen during a journal publication peer-review process wherein an editor or a reviewer suggests the author to cite one or a few papers (Thombs et al., 2015). Despite the suitability of the suggested papers, authors whose work is under review could feel pressured that they have to cite the list of papers to have their own paper published. Amongst all three types of self-citation, coercive induced citation is the most criticized with good reason.

Self-citation got a bad reputation in academia because people often see it as a proactive strategy to gain cumulative advantage (Flatt et al., 2017; Foley & Della Sala, 2010)—reflective of the view that success breeds success (Price, 1976). More broadly speaking, scholars have seen self-citation as a form of self-promotion (Flatt et al., 2017). Citation indexes greatly impact the researcher's opportunity to access funding and promotion (Flatt et al., 2017; Seeber, Cattaneo, Meoli, & Malighetti, 2019). Since the literature suggests that women self-promote less than men do (Maliniak et al., 2013) and often it backfires when women do choose to self-promote (Sanchez et al., 2019), it is relevant to reality check and learn from women's lived experience.

2.3 Self-marketing

The notion of marketing as exchange (Bagozzi, 1975) has served the marketing discipline as an organizing principle to examine both traditional (e.g., monetary exchange in goods and service) and nontraditional (e.g., volunteered time and votes in exchange of a political promise) marketing transactions (Hirschman, 1987). If the macro concept of marketing as exchange (Bagozzi, 1975) broadened the landscape of what the marketing discipline can cover, the Service-Dominant (S-D) Logic (Vargo & Lusch, 2006) extended the concept of exchange by emphasizing on value creation made possible by interaction—the process that facilitates exchange. According to the S-D logic, value is created when all parties involved utilize both knowledge and skill resources and create lasting outcomes that affect not only the interaction or exchange itself but also the lived experiences of all parties involved.

The exchange and value creation concepts were adopted by the American Marketing Association (AMA) and adapted into their official definition of marketing (AMA, 2017): "Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large." Essentially, marketing activities and principles are applicable to anything that promises value or the potential to generate value through exchange in marketplaces. On a larger scale, a country can engage in marketing activities to attract immigrants to help with the demanding economy; on a smaller scale, a jobseeker can market themselves as a person of value to targeted employers.

We have commonly seen branding practices among public figures such as sport stars (Hodge & Walker, 2015; Kristiansen & Williams, 2015), artists and musicians (Scharff, 2015), politicians (Schneiker, 2018), and religious leaders (Zijderveld, 2017). However, it was not until the blooming of self-improvement markets and increasingly accessible platforms that "ordinary" people started to capturing opportunities to brand their personas to a broader market of audiences (Marwick & Boyd, 2010). The rise of self-branding is a result of economic, social, technological, and cultural influences that idealize and emphasize individualism, self-promotion, entrepreneurialism, and self-governance (Whitmer, 2019).

The definition of self-branding has been evolving thanks to ongoing discussions from both the academic and practitioner fields. Shepherd (2005) accepted and acknowledged the term *personal branding* after reviewing the popular literature on self-improvement. Another group of researchers prefer the use of self-branding (Gandini, 2016; Whitmer, 2019), which is generally used interchangeably and is synonymous to personal branding (Gorbatov, Khapova, & Lysova, 2018). Following is the best definition of self-branding or personal branding that I have found so far to help clarify what self-branding or personal branding entails in this paper:

"Personal branding is a strategic process of creating, positioning, and maintaining a positive impression of oneself, based in a unique combination of individual characteristics, which signal a certain promise to the target audience through a differentiated narrative and imagery." (Gorbatov et al., 2018, p6)

In addition, it is important to disentangle personal branding from self-promotion as the latter is often used in citation literature as one of the primary purposes of self-citation (Aksnes, 2003; Simoes & Crespo, 2020). While Molyneux (2015) equated personal branding to self-promotion, I agree with Gorbatov et al. (2018)'s argument that personal branding and self-promotion are fundamentally different. Self-promotion is seen as inclinations and techniques for people to "highlight their accomplishments, take credit for positive outcomes, name-drop important others, and downplay the severity of negative events to which they are connected" (Bolino, Long, & Turnley, 2016, p384). In comparison, self-branding is a broader concept that encapsulates self-promotion and all the other strategies, such as positioning (Parmentier,

Fischer, & Reuber, 2013) and impression management (Khedher, 2015), to differentiate oneself in the marketplace.

It is also important to disentangle self-marketing from self-branding. The relationship and difference between self-marketing and self-branding, as the name suggests, resembles the relationship between marketing and branding. Shepherd (2005) distinguished self-marketing from personal branding by suggesting a difference in theoretical origins. Self-marketing encourages individuals to adapt and make changes to the self to meet the target audience requirements. The need to change oneself suggests that self-marketing is more influenced by the customer-oriented approach commonly adopted in the contemporary marketing theories and practices. In contrast, personal branding is defined as "an inside-out process that serves to encapsulate the current strengths and uniqueness of the individual in relation to a targeted market" (Shepherd, 2005, p12), emphasizing people's unique, authentic selves and the ability to self-examine and make oneself special, suggesting that self-branding more likely adopts a product marketing approach. For example, career advisors would encourage job applicants to expand their skill set to improve employability. In comparison, self-branding literature might suggest working with one's current skillset and packaging it to well-targeted audience.

Personal branding started gathering attention in academic literature in recent years across multiple disciplines, including marketing and management (Noble, Bentley, Campbell, & Singh, 2010), sociology (Whitmer, 2019), and psychology (Gorbatov et al., 2018). The discourse of personal branding took off because of Tom Peters' FastCompany article (1997, p83), in which he advocated: "We are CEOs of our own companies: Me Inc. To be in business today, our most important job is to be head marketer for the brand called You." The logic of self-branding, however, pre-dates Peters' article and is arguably "as old as human interaction and society itself" (Scheidt, Gelhard, & Henseler, 2020, p1). But it is not until the late 1990s and onward that we witnessed an expansion in self-improvement markets encouraging individuals to market and brand themselves following the same marketing principles theorized and practiced for traditional products and businesses (Shepherd, 2005; Vallas & Cummins, 2015). Academic research that studies personal branding as a pivotal, stand-alone concept began in the 2000s.

The early self-marketing and self-branding literature was motivated by an outward marketing of the individual self in hopes to gain social or economic rewards. Rather than isolating and promoting one's skillset, self-branding encourages individuals to construct, maintain, and promote a consistent, marketable, and authentic self-image which leads to social or economic opportunities (Shepherd, 2005). Self-branding has been tightly associated with a sense of urgency to stand out in a competitive environment such as a job market. The underlying motivations behind the early self-help or self-improvement books were to "get out in front of the pack" (Arruda, 2005) and not to lose power to others by giving up the opportunity to self-brand (Kaputa, 2003). In a way, early self-improvement popular literature was fueled by individuals' insecurities and aspirations to stay in the professional and creative class (Duffy, 2017; Marwick, 2014).

Self-branding has progressed into a framework that guides an inward investigation of the self through self-exploration and self-discovery (Banet-Weiser, 2012; Whitmer, 2019). Self-branding relies on the belief that the self is the source of core, unique, and authentic value that waits to be discovered. As tools that helped marketers and businesses to scan and learn the business and its environment, SWOT analysis (Learned, Christensen, Andrews, & Guth, 1969) and the AIDA model (Strong, 1925) both apply to the self-audit context. An individual must be aware of the self, have interest in the self, desire associations with the self, take action to create those associations (AIDA), and ultimately incorporate their knowledge of the self to further investigate their strengths, weaknesses, opportunities, and threats (SWOT) within their unique environment. With an emphasis on clear, adapted knowledge of oneself and the market, self-branding is an ongoing reflexive project that links the need of the self and the needs of the market (Whitmer, 2019).

Gorbatov et al. (2018)'s systematic review proposes five first-level attributes of personal branding (strategic, positive, promise, person-centric, and artifactual) and a framework to explain personal branding. To be considered as a self-branding activity, one must demonstrate all five of these attributes. First, the personal branding activities are targeted or directed at a clearly defined audience (Lair, Sullivan, & Cheney, 2005; Cederberg, 2017), and are programmatic since the activities are coordinated in advance (Marwick & Boyd, 2011; Lee & Cavanaugh, 2016). Impression management is considered as a vehicle for personal branding in the literature (Labrecque, Markos, & Milne, 2011). However, it remains unclear whether the "unconscious and habitual" (Bolino, Long, & Turnley, 2016) aspect of impression management fits into the personal branding definition or not since personal branding seems to suggest an active directed intention to achieve the desired outcome. Second, personal branding activity must be motivated by a positive intention to achieve positive outcomes, such as to "establish favorable impressions" (Lee & Cavanaugh, 2016), be "appealing" (Omojola, 2008), and gain visibility or draw attention (Hearn, 2008). Third, following the nature of marketing, personal branding signals to the target market a promise (Tulchinsky, 2011; Philbrick & Cleveland, 2015). Fourth, personal branding activities are person-centric, meaning that the branding activities must be performed with the active involvement of the subject of the activities (Lair et al., 2005) after they have reflected on personal characteristics before engaging in positioning strategies (Wee & Brooks, 2010) that are unique and desirable by the targeted market (Parmentier et al., 2013). Lastly, artifactual display in the form of narrative (Brooks & Anumudu, 2016; Eagar & Dann, 2016) or imagery (Van der Land, Willemsen, & Wilton, 2016; Holton and Molyneux, 2017) is an indication of personal branding activities. Academic CVs and online platform portfolios could be sources of artifactual attributes that reflect self-branding intention and execution.

The personal branding model proposed by Gorbatov et al. (2018) captures the trends, drivers, process, and outcomes of personal branding and depicts the sequential yet circular maintenance of personal brands through self-awareness, self-reflection, positioning and needs analysis, and feedback-seeking.

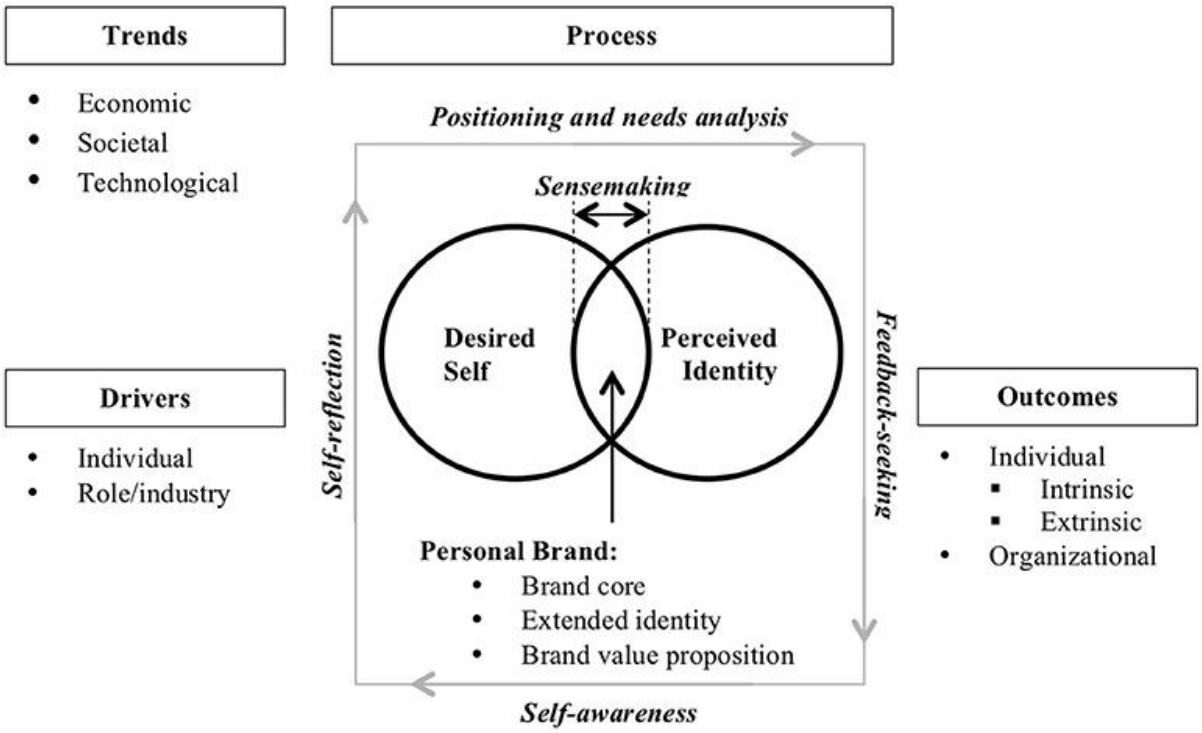

Figure 1: Personal branding model, as depicted by Gorbatov et al. (2018).

2.4 Literature Influence on Study Design

This study is positioned at the intersection of scientometrics and self-marketing to fill the gap in the citation and knowledge marketing literature. In this study, I explore women academics' lived experience of self-citation to understand women academics' rationale and strategy behind self-citation. To the best of my knowledge, there has been no qualitative empirical study to investigate researcher's citation behaviors.

Marketing of the self, where the self includes both the person and the outputs of that person, is at heart of this study to explore how women academics' citation behavior reflect their self-branding and self-promotion in the academy. To succeed in an academic career, academics need to collaborate with and often compete against other groups of brilliant academics. Therefore, marketing, and especially branding principles, apply to academics because there exist the needs for academics to be recognized or have a reputation as an expert in their field or discipline.

So far, the literature on personal branding in an academic context is very limited; most focuses on guiding students to adopt self-branding for career-seeking purposes (Hafer & Hoth, 1981; McCorkle, Alexander, Reardon, & Kling, 2002). The only paper that has examined academic prominence through a personal brand perspective focused on the branding process and identified several activities that lead to scholarly eminence (Noble,

Bentley, Campbell, & Singh, 2010). My study therefore fills a gap as it offers a unique perspective of women academics' citation experiences which could lead to more discussion in their self-branding practice through citation.

Drawing from previous research about women in academia, citation, and self-marketing, this study aims to answer the following research question: *how do women academics experience citation and self-citation in their careers?*

This paper aims to investigate the role of citation plays in women academics' self-branding strategies or the lack thereof. By interpreting women academics' experiences of thinking about, using, and strategizing their citation decisions, this study will delve into women academics' authentic experiences of how they market their knowledge and themselves through the lens of career advancement.

3. Methods

3.1 Interpretative Phenomenological Analysis

I carefully studied and used Interpretative Phenomenological Analysis (IPA) (Smith, Flowers, and Larkin, 2009) to guide the investigation of female academics' personal lived experience of using citations. My understanding of the theoretical foundations of IPA and of Smith, Flowers, and Larkin's (2009) approach are described in the following paragraphs.

IPA is a phenomenological methodology that was initially carried out in the 1990s to study psychological experiences in clinical and counselling psychology. In the last few decades, IPA has built up heat and has been adopted by psychology researchers and scholars in diverse disciplines across the world. What appealed to me was IPA's explicit commitment to understanding the phenomena of interest—in this case, women academics' citation experience from a first-person perspective—and its flexibility in the design and execution of the research.

To understand IPA, it is important to learn about the three key epistemological foundations that informed IPA: phenomenology, hermeneutics, and idiography. At its core, IPA research is built on researchers' interpretation of participants' lived experience, which is a complex debate itself between the leading figures in phenomenological philosophy, like Husserl (1927), Heidegger (1962/1927), Merleau-Ponty (1962), and Satre (1956/1943). Husserl's work (1927) sets the foundation for IPA because of his transcendental interests and descriptive commitments which established the importance and relevance of a focus on experience and its perception. The works of Heidegger (1962/1927), Merleau-Ponty (1962), and Satre (1956/1943) moved away from Husserl's interest and focus on the descriptive experience and its perception towards a more interpretative and worldly position with a focus of the interconnectedness, perspectival, and directedness of our involvement in the lived world. Building on the work of all these philosophers, IPA researchers have come to the appreciation of the complex meaning and understanding of experience as a lived process and as a carrier of perspectives and meanings, which are unique to the person themselves and their relationship to the world.

IPA research attempts to understand other people's lived experience through their relationship to the world. IPA's attempted interpretative endeavor has been heavily shaped by the theory of interpretation—hermeneutics. Notably, Heidegger (1962/1927)'s explicit ascription of phenomenology is as a hermeneutic enterprise that seeks to examine how a phenomenon appears, which has a unique role in IPA. Heidegger sees appearance as a dual quality thing - one that has certain surface meaning to us, the other that is more latent or concealed as it shows itself to us. Whenever we interpret something, we are inevitably influenced by our foreconception, which resembles a filter that we see the world through and that we may never be able to completely take off. The best we could do is to acknowledge our foreconception by

bracketing and accounting for the prior experiences, assumptions, and pre-conceptions as much as possible. The ideal result of phenomenological work seeks to capture and illustrate a full picture of the phenomenon, or in Heidegger's word—appearance. However, because of the uniqueness of the preconceptions held by the participant who attempted to make sense of their experience of the research topic and by the researcher who attempted to make sense of participant's sensemaking, we might need to accept that bracketing can only be partially achieved. We might need to surrender to the fact that there will always be distance between the participants' lived experience, and IPA researcher's analysis and presentation of the lived experience. This is the idea of double hermeneutics in IPA.

IPA regards this dynamic notion of making sense of relationships between the part and the whole as the "hermeneutic cycle". In IPA, researchers engage with the data in a non-linear, dynamic, and iterative manner in the layers or sets of relationships that are used to guide the interpretative analysis (Smith, Flowers, and Larkin's 2009, p28):

The part	*The whole*
The single word	The sentence in which the word is embedded
The single extract	The complete text
The particular text	The complete oeuvre
The interview	The research project
The single episode	The complete life

The third philosophical influence upon IPA is idiography, which is concerned with the particularity of the nuanced experiential phenomena, person (or people) who experienced the phenomena, and the context of the phenomena. IPA operationalizes idiography from two aspects—depth of analysis through series of thorough and systematic analyses of data and use of small, carefully-situated, purposively-selected samples. IPA's commitments are also reflected in its use of single case studies to make generalized claims after cautious examination of all the particular elements described above. Now that I have reviewed the theory behind IPA, I will explain how I operationalized IPA in this study in detail in the following section.

3.2 Participants and Interview Format

Recruitment

The original recruitment plan was approved by the Behavioural Ethics Research Board at the University of Saskatchewan to target and recruit women academics in the Science, Technology, Engineering, and Mathematics (STEM) fields. Unfortunately, after more than one month's recruiting efforts via PAWS, direct emails, and supervisor contacts, there were no prospective participants from STEM fields approaching me with interest to take part in this study. There are several reasons that might have contributed to the low response rate of the original recruitment plan. First, I started the first round of recruitment around the end of 2020 fall term. STEM professors could be overwhelmed with teaching and research tasks to

have time available to take part in an interview study. Secondly, the comparatively weaker personal connection with professors in the STEM fields made it more difficult to build connection to draw their attention to the study invitation. Thirdly, the invitation messaging was not persuasive enough to gain STEM professors' interest. Lastly, the ongoing pandemic itself is stressful and overwhelming for many academics, thus making people less willing to give up their time to partake in a student's project.

After discussing with my supervisor and getting approval from my committee members, I amended my ethics plan to broaden the participant recruitment criteria. Instead of just recruiting women academics in STEM fields, I proposed and was approved to also recruit women academics broadly in the social science disciplines. To ensure homogeneity of the sample, I focused the recruitment effort on recruiting women academics in marketing. In addition, the adapted target sample adds another layer to the study to investigate whether participants' marketing background has influenced their view on self-promotion and self-branding. The finalized recruitment criteria for this study are women academics who (1) self-identified as women; (2) provided informed consent; (3) were working at a research university in a position that was assistant professor or higher; (4) have more than five publications in peer-reviewed research journals.

Prospective participants could clearly see from the research invitation that we were looking for women academics to talk about experience of using citation and self-citation. Therefore, participants who provided informed consent and participated in this study all self-identified as women. The gender identity was re-affirmed when asked to provide demographic descriptions. Before scheduling each individual interview, I checked each prospective participant's academic profile on university website, Google Scholar, and Web of Science to confirm their academic position and publication history. All participants met the inclusion criteria and were willing to share their experience on the topic of interest. Therefore, this study has internal validity.

Thanks to my supervisor's and a mentor's professional contacts of women academics in the marketing discipline, the updated recruitment process was relatively easy. I used purposive and snowball sampling following all ethics guidelines to reach participants with characteristics and lived experience of interest. Participants were recruited primarily through direct email using academics' contacts that are either publicly available or shared by my supervisor. Again, thanks to the mentor's broad contact in her field, many prospective participants reached me directly with interest to participate because of her referral.

Participants

Participants were 11 women academics in the fields of marketing, advertising, and human resources. Following is a brief, holistic summary of each participant's background to provide context for readers to situate and understand quotes that were attributed to individual participants. The summary includes but is not limited to each participant's approximate age

range, familial situation, academic position, career stage and length, and what I found to be important to share about the participant.

Table 1. Participant Demographics of 11 participants in women academics' citation experiences study.

Participant ID	Ethnicity	Academic Position	Years in Academic Career (yrs)
P1	Caucasian	Full Professor	25
P2	Caucasian	Associate Professor	10
P3	Caucasian	Full Professor	23
P4	Caucasian	Assistant Professor	10
P5	Caucasian	Full Professor	25
P6	Asian	Associate Professor	8
P7	Caucasian	Associate Professor	11
P8	Caucasian	Assistant Professor	14
P9	Caucasian	Full Professor	14
P10	Caucasian	Associate Professor	15
P11	Caucasian	Full Professor	14

P1 is a full marketing professor working in a Canadian university. She has a steady record of publication including peer-reviewed research journals, book chapters, and conference proceedings. According to her recollection, she started publishing in the top tier journals about ten years ago. She is the current editor of a highly reputable advertising research journal and has been a reviewer for many years. Besides research and teaching duties, she also partakes in the evaluation committees that make faculty hiring and promotion decisions. She presents her work by doing the *"normal academic stuff"* and recalled that she does not know how to promote her work otherwise.

P2 is an associate professor specialized in interactive marketing at an American university. She is in her early forties, married, and has no children. P2 has been working as an academic for over ten years now. She is quite new to her current position and was placed on an expedited tenure clock at her institution. P2 had gotten tenure at her previous institution which she left about two years ago. P2 is an advocator for helping graduate students to build their habits to establish and maintain their online academic identity and presence. When it comes to self-citation, P2 tends to "*err on the side of not citing*" herself unless her previous work is too important to leave out.

P3 is a full advertising professor at an American university. Her research and academic background evolved around culture and communication. She was originally from one of the highest populated cities in Canada and had a few years of experience living in an Asian country. She published mostly in advertising journals with a wide range of journal impact. P3 works in an institution that has abundant research funding which allowed P3 to design and

conduct research without the influence or the need to chase grants. During the interview, P3 came off as a very warm and approachable professor who is willing to offer guidance and help to students and mentees.

P4 is on her 5th year working as an assistant professor at an American university. Her research area focuses on advertising and health communication. P4 is in her early forties and a Caucasian American. P4 was hyper self-critical and showcased a high standard to assess research quality and rigor for not only her own work, but also the work she reads and evaluates. She tends to be a quantitative researcher though she had integrated qualitative methods in some of her previous studies. Before her current position, P4 had worked at another American university as a faculty for five years.

P5 is a full professor and the associate dean at the communication college in an American university. Her research focus is around social marketing. P5 is married and has two children. P5 had worked in various industries for years before pursuing her PhD in advertising and committing to a life-long career working as an advertising scholar. After attaining her PhD in advertising, P5 started and has been working in her current institution for 25 years.

P6 is an associate professor of advertising at an American university. She is married, and a mother of two. She is a prolific scholar with over 50 peer-reviewed journal publications in advertising, marketing, and health communication journals. P6 is a qualitative researcher who takes pride in every piece of her work. P6 had worked at three other universities that were more teaching-oriented before she started her position at the current institution which is a research tier 1 university.

P7 is an associate professor working in a Canadian university. She is a white female who grew up with a working-class background. She has published widely in both peer-reviewed journal articles and non-peer-reviewed work, such as book chapters and publicly accessible reports.

P8 is an associate professor of marketing at a university in Canada. Her research is around social marketing and consumer wellbeing. She is at her mid-forties, married, and a mother of two. Her previous experience working in media relations allowed her to comfortably share her research via various media channels. Her work was highly cited and received awards consecutively for many years.

P9 is a full marketing professor at a university in the states. She is in her mid-forties, married, and a mother of two. She has been working in her current institution since graduating from her PhD program. Her research focuses on marketing ethics, consumer data privacy, and consumer wellbeing. She serves on the editorial boards of several highly reputable marketing journals.

P10 is an associate professor of marketing at a Canadian university. She had many years of industry experience before entering her PhD program. She is single and a mother of one child. She has over twenty peer-reviewed journal publications in a range of marketing journals. She is tenured with a plan to apply for full professorship eventually.

P11 is a full marketing professor at a Swedish university. She is in her early forties and a mother of two. She values bridging theories to practices and has been working closely with the industry to provide useful insights for practitioners. She stayed at the university for both her PhD studies and after.

Interview format

I collected data using semi-structured interviews. I would like to thank my supervisor and committee members for commenting on the interview guide (see Appendix D) which I adjusted and implemented to guide all interview sessions. I used a funneled approach that started with a broad discussion of participants' academic history and progressed to more specific questions probing lived experiences of citation, self-citation, and gendered experience in the academia. The purpose of a semi-structured question guide was to guide the interview process rather than to dictate the conversation. I was there to uncover and tell the stories of participants who were the "experiential experts" (Smith & Osborn, 2003) of the research topic.

Because of the ongoing pandemic, all interviews were scheduled and conducted online via WebEx—the online conference platform that was authorized by the University of Saskatchewan. Moreover, online interview is a reasonable format which allowed me to reach academics around the world. I arrived five minutes before each scheduled meeting time to situate in the interview environment and adjust conference setup if necessary. Participants usually arrived on time; only three participants had either technical difficulty or lingered commitment that caused delay to start the interview on time. During each interview, the participant and I started with general greeting and a brief introduction before I asked for oral consent. All participants gave oral consents to participate and to be recorded before I started recording.

It could be difficult to establish rapport during an online interview because of the lack of real eye contact, sometimes lagging internet, and the limited view of each other's environment which all lead to a feeling of distance and lack of connection. To eliminate some of the distance and to build trust with participants, I started off the interview by explaining my anticipated movements for the following interview session. Specifically, I explained where my camera is and how I might look like to her on the screen when I was looking directly at her; I explained where I placed my interview guide and how I would look like when I am looking at it; and if she saw me looking down, that was because I was taking notes of what she had said. Participants showed understanding of the interview setting and were generally happy that I offered the explanation.

I recorded all interviews using the built-in recording in WebEx and stored all recordings in my local, password-protected computer. I also used an external device to record the interview sessions as a back-up plan to avoid losing raw data due to unforeseeable technical issues. After confirming that all WebEx recordings were accurate and complete, I deleted all the recordings from the external recorder and only kept the WebEx recordings for more manageable data storage. Along with the WebEx recording came an auto-generated transcription that roughly captured the dialogues between the participant and me. These transcripts did not substitute for manual transcription because of its low readability due to format and transcription errors. However, the auto-generated transcripts did help to cut down transcription time by offering a solid structure to work from and add clarifications to.

To capture and retain as much interview context as possible, I included descriptions of some significant participant reactions in square brackets, such as [brief silence], [laughter], [hand gesture indicating quotation], etc. I did not record every little detail of participants' tone changes or bodily movement as doing so could exponentially increase the amount of transcription work. However, recording some of the noticeable tone and movements of participants was helpful to recover and re-situate myself in the interview to facilitate data analysis. That said, I did mark participants' two types of tones while transcribing—emphasizing and downward tone. Obviously, participants emphasizing certain words is a strong signal that I need to pay more attention to interpret what it was and why the participant was putting such emphasis on it. As for the downward or faded tone, I find it indicative of many participants' behaviors and attitudes, such as losing interest in answering the question due to interview fatigue or lack of interest in the question, comparatively lower confidence in the specific topic area, uncertainty of the answer given, intention for the researcher to focus less on the answer shared, and many more. In summary, emphasizing and downward tones were important linguistic cues in my data analysis process.

3.2 Coding and Analysis

I used OneNote to organize and aid the coding process in its early stages including reading and re-reading, initial noting, and line-by-line coding. I set each page for one transcript, leaving enough margin on the left which I used to note codes. I had individual dialogue boxes on the right-hand side of each paragraph to note any thoughts and interpretations that came up during coding. The interface of OneNote is wide enough that it offers boundless blank space to make notes. Also, because of the embedded text editing functions, it was easy to set up a system that helped me to distinguish my analysis using different highlight color, text color, and text format (see Appendix E). Moreover, the search function in OneNote allows easy retrieval of quotes and notes. Overall, I was happy working with OneNote for my early-stage data analysis.

The core of IPA is its analytic focus which directs the researcher's analytic attention towards participants' sense-making of their experiences (Smith, Flowers, and Larkin, 2009). There is no clearly prescribed right or wrong method of conducting IPA analysis. What I had inferred

and learned from the published IPA research and methodology texts was that the analysis should be participant focused. The beauty of IPA is its "healthy flexibility" which could be influenced by researcher's creativity and research style. As a novice IPA researcher, I adopted the suggested data analysis steps (Smith, Flowers, and Larkin, 2009) to guide my coding and making sense of participants' experiences—these steps are outlined below. The analysis process was an interactive and inductive cycle (Smith, 2007) with many overlaps between steps and lots of jumping back and forth to clarify and situate my interpretation within participants' contexts.

Reading and re-reading

Immersing in the data and becoming familiar with the data is the pre-requisite of data analysis in IPA. Active engagement with data also allowed me to appreciate the overall structure of the interview, how rapport and trust was built, and how each participant tells their stories. I became very familiar with the original data through conducting the interview, transcribing, reviewing and clarifying transcripts, reading and re-reading, and listening to the original recordings. During the initial stage of data transcription and review, I caught several misinterpretations of participants' expression by reading and re-reading the transcript. For example, P2 said: "*So, I'll err on the side of citing that ONE article and have that be kind of encapsulate, you know, the contributions I've made thus far versus citing, you know, five different articles that I've written on the topic*." I originally interpreted this as: "If using one paper suffices to prove a point for P2 and illustrate what she had done, she would not cite more of her work in the same area to inflate her citation." However, she had never expressed intention to not inflate citation. The "to not inflate citation" is my assumption and my voice. The participant did not explicitly say that. Obviously, these mistakes could lead to further wrongful interpretation of participants' experience. Thus, it is critical to read attentively to closely examine and compare the meaning that I inferred from the dialogue versus what the participant was actually telling me.

Initial noting

My first round of coding took a chronological order from P1 to P11 at the pace of two transcripts per day. I played the recording using 1.5x speed while reading the transcript closely for comprehension. The noting and highlighting appeared to be very random and unsystematic at this stage. I interchanged between summarizing sentences and highlighting or combined both strategies to mark important sections and note my thoughts. There were no meanings attached to highlight colors; notes were mainly descriptive and far from interpretative. However, the initial noting enhanced my familiarity of the transcript and built my overall understanding of the transcript flow which were all essential in the following data analysis stages.

Line-by-line coding

During this stage, I set up a highlight and text format system to help me navigate and understand participants' experiences. More specifically, I used normal text for descriptive and summary notes; I used italics for linguistic comments, such as repetitive use of words, utterance, emphasizing words, pauses, tone, etc.; and I underlined conceptual comments that

were interrogative and interpretative to mark my making sense of participants' experience. (See Appendix E for examples)

Emergent Themes

According to Smith, Flowers, and Larkin (2009, p92), themes are defined as "phrases which speak to the psychological essence of the piece and contain enough particularity to be grounded and enough abstraction to be conceptual". In my understanding, developing themes is another turning point where I incorporate more of *me* with my interpretations with a determined intention to make sense of participants' experiences. This is undoubtedly the most challenging part of the whole study for me. During this stage, I shifted my focus from transcripts to work extensively with my initial notes and codes. At this point, my notes are comprehensive enough to reflect the original transcripts; and because of OneNote and how I set up the page, it was easy to trace my comments back to the original transcript if needed. I began to refine, expand, and condense themes and ideas using index cards, sticky notes, and white boards. I also used mind-mapping software, such as XMind, to organize initial themes which helped in the abstraction of superordinate themes.

Though IPA specified that there are no prescriptive methods to search for patterns and connections between emergent themes, Smith et al. (2009) suggested a few ways to help novice researchers start the analytic process. Abstraction has been the most straightforward and helpful during my analytic process. However, in my understanding, the abstraction technique is not mutually exclusive to other techniques, such as contextualization, numeration, and function, which all contributed to the analytic process in one way or another.

Abstraction is the process of identifying patterns between emergent themes and developing a higher order theme—superordinate theme—which captures the essence and commonality between a group of themes. For example, there is a series of emergent themes that criticize while accounting for the advantage of citation metrics. Based on my interpretation, this series of themes reflects the open-mindedness of the participants—that they have been open-minded about citation metrics' capabilities and their limits. Therefore, I categorized this group of emergent themes under the superordinate theme title: "open-mindedness".

Other methods that I mentioned above are more specific, but I found them distracting as they tend to focus on the external context *(e.g., contextualization)*, frequency *(e.g., numeration)* and polarization *(e.g., function)* of themes. Instead, I used these techniques to help me understand participants' experiences and then abstract the meaning to capture what I observed and understood. For example, to arrive at the superordinate theme "identity management", I had to understand participants' ideal image by analyzing the function, or the positive and negative aspects of identity management, of emergent themes. In addition, themes that occur more frequently are more likely to draw my attention to scrutinize and determine if there is a meaningful pattern. In essence, these techniques help to identify a pattern, but abstraction ultimately leads to a discovery of meaningful superordinate themes that capture the essence of a series of subthemes.

Graphic Representation

IPA advised analysts to attempt a graphic representation of the emergent themes through table, figure, or any other devices that they find helpful. I decided to use a table to organize and layout my findings of three superordinate themes—connectedness, open-mindedness, and identity management (See Table 2 in Findings section).

3.3 Reflexivity

Constant reflexive practices are important to conducting quality IPA studies to ensure the hermeneutic nature of IPA. Reflecting on my perspectives and standpoints could also help readers to understand where I came from and what experiences might have influenced my data analysis and interpretations on the research topic. Moreover, reflexive practices help the analyzing process by isolating my thoughts from my interpretation of participants' experience. I kept a research journal throughout the process using OneNote to record my decision trail and thoughts that came up along the research. Keeping a research journal also helped me to record and reflect on my assumptions related to the topic.

As for my background, there are many categories to discuss that could have shaped my perspectives and my interpretative framework related to this study. I am a Chinese female in my late twenties and have been living in Canada for almost ten years. I received my pre-college education in China and my post-secondary and graduate education in Canada. My understanding of citation in my undergraduate studies was that citation is something tedious that all students must use to avoid plagiarism. In my graduate studies, I learned, inferred, and practiced citation. This thesis helped me understand citation in more depth and shaped my belief that citation is a universally spoken academic language and should be kept as simple as such. My understanding of feminism went through phases as well. Pre-research, especially pre-graduate study, I had a rather weak and narrow understanding of feminism and gender studies before starting my thesis. And my views on gender issues shifted and have been developing as I am finishing writing my thesis. Ideally, in face of science, all academics are and should be genderless. However, research has repeatedly shown that it is not the case. There seems to be a long way to go to reach and maintain equity of any kind in academia. But I am thankful for exploring my thesis topic which broadened my views of the world and reminded me to be mindful of my thoughts, decisions, and actions and their influences on others.

In this study, I don't think that I have power over my participants. Instead, I believe that my participants hold higher power than me not only because of their higher positions in academic career, but also the differences in our identities. More specifically, it was natural for me to position myself as a student and a listener rather than an interviewer while conducting the interview because of my current identity as a graduate student. In fact, I did walk out of each interview feeling like that I got a free but invaluable one-on-one graduate seminar in which I learned a lot about female professors' value as an academic.

It was more challenging than I expected to facilitate and conduct interviews. I noticed that during interviews, sometimes I was slow to reply or follow up to the participants' responses, causing a response lag between my participant and me. I could be bogged down by the full picture of the interview guide and was less receptive of the interesting new direction that the participant suggested. An example would be that instead of keep drilling down something idiographic and novel that the participant just shared, I went back and asked something I noted down on my notepad that the participant had said previously. Therefore, my low or lagging receptivity could have cost me many interesting leads of participants' experiences which could have further influenced the richness of my data.

4. Findings and Discussion

This chapter aims to narrate participants' experience of citation in a phenomenological and interpretative tone. The iterative and interpretative analysis process led to three superordinate themes: connectedness, open-mindedness, identity management. The superordinate themes help us to understand what women academics think of citation and how they experience citation. All superordinate and subordinate themes are summarized and presented in the table below.

Table 2. Table of three superordinate themes and subthemes from 11 participants in the women academics' citation experiences study.

	Superordinate Themes		
	Connectedness	**Open-mindedness**	**Identity Management**
Subordinate Themes	Learning	ONE-measure	Self-presentation
	Belonging	A Relative Measure	Self-promotion
	Web of Citation	Impact	Disassociation
	Social Media	Evidence of Impact	Etiquette
		Valued Impact	Organic Promotion
		The Not-so-glorious	Exposure
			Gendered Experience

It will become evident that some subordinate themes are overlapping despite my intent to clearly separate them into different superordinate themes. How I presented the findings, again, is a result of my hermeneutic understanding of the research data. It is therefore important to keep in mind the hermeneutic circle and consider each theme in relation to the broader, holistic experience of citation. I will use transcript excerpts in the form of quotations both throughout the paragraph and in-between paragraphs to demonstrate the phenomenological core of the study.

4.1 Connectedness

Connectedness is the state of being linked or joined. This superordinate theme captures the connected nature of citation experience shared among all participants who agreed that citations are the links between knowledge and between people. The connected nature of citation sets the stage or network that women academics need to navigate and situate both themselves and their work in. In this section, I will explain how participants experience citation as a process (learning), a signal of acceptance (belonging), and a system intertwined with technology (web of citation and social media).

Learning

> *"Yeah, I learned nothing during my academic training of self-citation. Well, nothing, zero. They were like 'Yeah, too bad. Go write your papers yourself.'." P1*

All participants reported that citation, especially self-citation, was not a main topic of conversation during their PhD years. Yet, citation and self-citation are essential parts of academics' day-to-day writing routine. How did academics learn about how to cite and self-cite? Where did they acquire the knowledge of self-citation? This subordinate theme illustrates connectedness through making sense of how academics registered their own citation practices and how connections with people influenced women academics' beliefs of socially acceptable citation practices.

As reflected in the quote at the beginning of this subtheme, P1 was left to figure out the monstrous writing task on her own. She was not the only one. P7 reported that her experience of learning about citation was through *"trial and error"*. There were *"never any formal training or discussion"* (P4, P7, P6, P10) about citation and self-citation norms in academic training.

> *"Yes, it's all been just learning and trial and error and inference. Kind of just in reading other papers, sort of seeing how people cite and that kind of thing." P7*

To various degrees, all participants taught themselves a system about citation and academic writing that they adhere to till this day. Most participants note their effort to deeply engage with reading and writing academic papers as a main source to gain knowledge in writing practices. They acquire or infer citation related skills as they progress through their academic careers.

> *"Those will be things that you figure out on your own as you make your way in this job. Right?" P2*

Participants' learning processes might seem isolated and disconnected, but further interpretation of participants' dialogue around citation experiences revealed a layer of inner connectedness that suggests otherwise. Besides participants' one directional learning from other academics' writing, participants also engage in social interactions with mentors, peers, and co-authors with whom academics verify and adjust their own writing and citing practices. For example, P6 shared her experience of being told by her co-author that their use of self-citation was not fitting in an institutional grant application proposal. P6's interpretation of her co-author's judgement was that it stemmed from efforts around image management: she believed her co-author did not want to appear as though they were bragging about the work they had done. Nevertheless, this example shows that academics do verify and adjust their citation practice when immersed in social relationship such as the co-author relationship explained in P6's case.

> *"I thought [that] she thought [that] we [were] kind of showing off or, you know. bragging about our research. And it is because the elements, because this is kind of for internal funding, I don't know, but at the moment, I just took that out." P6*

Participants connect with people with whom they share or mirror value. These people are critical in the shaping of academics' perceptions and attitudes towards preferable citation practices. The connectedness within these relationships brings people closer and helps to maintain long-term relationships, such as mentor-mentee (P1), author teams (P6, P8), or cohesive faculty (P9). Participants' trust in their mentors, advisors, or colleagues was evident. P1, P6, and P9 demonstrate their trust by justifying their mentors' qualifications—that the mentor had *"10 years"* of more experience than P1 had at the time, that P6's co-author was at a higher rank compared to P6, or they are *"ethical"* which is a strong personal philosophical value held by P9. Role models' personal citation practices are the bonding links between role models and receivers. With time, role models' values and practices around citations would continuously strengthen and grow into part of participants' identity and citation practices.

> *"So what where I learned it was from my co-author, EM, he's about 10 years older than I am. [...] We worked together for 20 years. And he taught me a lot about how to respond to reviewers how to. Um, how to cite yourself." P1*

> *"I view them (seminar instructors) all very ethical people and so I think that their approach to just exposing us the to a wide variety of work was always embodied in what they did." P9*

Trust in mentors and instructors in PhD programs or early career stages could also be a product of a power gap between teachers and students. P4's general idea that self-citation is something to be encouraged was a result of P4 *"soaking it all in"* during her PhD training. The metaphor of *"soaking"* the knowledge and value in like a sponge reflects that P4 experienced her learning process through a passive state of receiving with very minimal screening or justifying for validity. Of course, it also reflects P4's eagerness to learn and absorb knowledge in her PhD years. Still, the unfiltered trust is clear as P4 indicates: *"I don't think I question that at all."*

> *"When it would come up while working on studies with other faculty that it was, it was encouraged, the idea was to say, 'hey, if you have an opportunity to self-cite. you want to do it.' You know, it's just to get that work out there. That is, you know, the more you can get your work out in front of people, it's going to help your reputation.'." P4*

Participants' lack of formal training in topics such as scholarly identity management, self-promotion, and citation practices seems to inspire new teaching and new learning on these topics in the current graduate education system (P1, P2, P3, P5, P6, P8, P10). For example, P1 and P2 shared their approach to teach graduate students how to write, including but not limited to citation practices. Moreover, they also teach students how to establish and promote online and offline scholarly presence in academia. These newly adapted graduate teaching practices could be the experienced academics' compensating for what they have missed during their academic training in their younger years. Mentoring newcomers to academia and

teaching them career strategies may be participants' way of memorializing their younger selves and connecting with the new generation of scholars.

Belonging

Participants experience citation, both citing and getting cited, as signals of acceptance and belonging. More specifically, participants view getting cited the same way as getting *"external validation"* (P3, P7) because the academics and their work are included in the *"academic conversation"* (P6, P9). Similarly, citing others is seen as an act to demonstrate validation and inclusion of other academics' work. In other words, academics use citation to justify theirs or other academics' belonging in a certain research area.

When participants feel connected to their audience, they report a sense of belonging in the research area and the academy. Getting cited is like getting invited in an academic conversation in which academics get to respond back and forth with each other's work.

> *"No matter what the work that we're doing, it's all in many ways in conversation with one another. And so it's important to make sure that you're including the, the relevant sources so that you are making sure making it clear sort of what this conversation is and how you are a sort of discussing what what's been done and responding. You know, how you're responding to that with your work." P4*

Participants also actively demonstrate that they belong in a research area or the academy in general by showcasing their knowledge in the area, more specifically, that they know what are the relevant studies that they have to include. Citation is then used as a strong signal to display and gauge academics' knowledge and understanding of the research area. Academics are expected to cite the core studies, without which the academics would appear clueless of *"what's going on there"* (P6).

> *"Citation shows YOU, you know, you kind of know what's going on there. What's the academic conversation about the topic there? So, and then you HAVE TO have that academic research." P6*

Participants use citation to support the previously disadvantaged by citing their work. In this case, citing others showcases connectedness that goes beyond connecting ideas and papers and extends to behaviors that are supportive and other-oriented. P7 pointed out that some academics and their work might have not been cited as much as others and therefore marginalized due to these academics' career stage, gender, and racial characteristics. By citing the previously disadvantaged, participants are trying to actively include this group of academics and their work which leads to an increase of their sense of belonging. These supportive behaviors are women academics' efforts to nudge the academy towards equity where the more accomplished academics recognize other academics' needs and slow down to lift ones who got left behind to level the field for all academics. These supportive acts are

great examples of participants' mindfulness towards others. They are considerate of other academics instead of fixating on their own performance and career advancement.

> *"If I had a choice between a couple of citations that kind of all make the same point and I don't want to have like, 10 citations for the same point. I think I might choose it based on characteristic like junior scholar or female, or non-white to try and support, like, other academics who, maybe in the past, because of other kinds of forms of disadvantage, maybe haven't been as cited." P7*

> *"Yeah, I have now started to if there are like four papers that I could cite on something, and I want to get rid of a couple of them. I have started picking the women, that to keep the men to get rid of, that if they are all sort of support the same point, I will get rid of the male authors and keep the female authors." P8*

Academic integrity is still the strongest prerequisite when academics make citation decisions, including decisions about other-oriented citations. Both P7 and P8 emphasize that only when all else is equal—all papers are making the same point—do they consider incorporating these other-oriented, pro-equality acts. As P7 later pointed out, these *"second order decisions"* are less common and are difficult to execute in practice. For example, when academics are trying to finish a paper quickly, they could pick a *"decent citation"* fairly easily without initiating *"second order decisions"* to cite work of the previously disadvantaged.

We also find other-oriented citation behaviors in relationship building, such as a mentor and mentee relationship. Because P3 has been invested in her mentee whom she wants to see succeed in academia, P3 would cite her mentee's work when fit to help him with his citation measure. Citing P3's mentee is still an other-oriented behavior with an intentionally specific beneficiary. But there is a commonality between all these other-oriented citation behaviors—intention to see other people succeed and willingness to engage other academics' work to increase their belonging in the research area or more broadly, in academia.

> *"I do feel I have thought about citing a colleague of mine—my mentee—to try to make sure that his work is getting out there so that when he went up for tenure, he was solid when he's going to go up for full is going to be solid. I'm invested in him that I want him to do well." P3*

Web of citation

Participants experience the web of citation as digital and relational reality. The first layer of the web is quite literal in the sense that it connects papers together through digital links made available thanks to the rapid evolution of online databases. The citations, or references in this case, become an *"internet of citations"* (P2) that link papers in the digital space.

> *"To me, especially the way it works now with online, things like Google scholar and the various, um, you know, different ways, citations get kind of connected in the digital*

space. You know, it behooves you to have those citations in there so that they get networked across the other citations that are happening. Like, it becomes its own internet of citations almost." P2

The digital reality appears to influence academics' citation decisions. For example, participants (P7, P9, P10) note a tendency to cite papers that already have higher citation count compared to ones that are newer and do not have many citations. The action of citing a paper is academics' effort to build links between ideas or research. The citation count system is prone to become a *"never ending sort of loop"* (P10) when self-citation comes into play because of the potential *"snowball effect"* (P7 and P8) that might be initiated by self-citation.

"So when you do a Google Scholar search, and it says how many people have cited the paper number. I am more likely to use it [than] to click on a new [paper]." P10

The web of citation also encompasses the metaphorical links between ideas, papers, research, academics, and audiences of academics' work. Participants report that the fundamental function of citation is to *"source"* (P1, P2, P4, P9) or credit previous research to *"ground"* (P1, P5) the current research and to *"tell a story"* (P4, P5, P9) of what the academics are doing in their current research to *"clarify that for the future readers"* (P11). In an abstract way, academics' actions to cite something creates three types of connections which branch out from the current research. First, a strong web of citation—for the manuscript—connects academics' own thoughts and arguments together. A strong web of citation means that all citations in the web are *"necessary"* (P1, P2, P5), *"logical"* (P2, P3, P4, P5, P9), and appropriate to *"build a strong paper"* (P1, P4). Second, the act of citing something creates a connection between the author and the cited author. In the case of self-citation, the author connects with previous works of their own. Third, citation, or authors' attempts to help readers understand the research, links authors and audiences together. In cases where audiences would scrutinize the appropriateness and legitimacy of authors' use of citation, the author-to-audience connection may be strengthened or weakened depending on whether audiences find the citation useful or not.

Social Media

In the last two decades, there is a growing number of channels in which academics could establish their scholarly presence, including LinkedIn, Facebook, Twitter and platforms that are tailored for academics, such as academic.edu and research gate. During the interviews, I asked about social media within the context of self-promotion. The purpose was to probe participants to talk about their attitudes towards self-promotion in general to compare with their attitudes towards self-citation afterwards.

Despite the ongoing trend that encourages academics to engage in social media and other online platforms, all participants showed some level of disinterest to engage in-depth with these channels.

Academics hold varied attitudes towards using social media for professional reasons. Depending on personal contexts, participants are not motivated (P1, P3, P5, P6), *"not very good at"* (P7) social media or *"don't know how"* (P1) to use these platforms. Some used to post their newly published work on social media and ended up losing interest to continue (P6); some are aware of other academics promoting their work through social media channels and realized those as opportunities and behaviors that they could adopt but have not (P8); some are big advocates of using social media as a preferred channel of promotion (P2, P9, P11), while others are completely resistant to the idea of actively promoting their work on social media (P10, P11). I will break these cases down in the following section.

P10 is a passive promoter. She gets *"dragged into"* promoting activities, suggesting that she sees communication experts' efforts to publicize her work as an external force that separates her from her natural being—one that loves to stay *"out of the limelight"*. It was evident by P10's repetitive use of *"no"*, and other denying linguistic cues which strongly suggest she is disinterested in and disengaged from any personal promoting activities, including but not limited to social media, news outlet, and anything in between. *"We don't really do anything because THEY (the PR/communication teams) are on top of it."* (P10) The use of *"we"* in this case is P10 normalizing her low involvement in promotion activities by describing it as a group phenomenon rather than a personal choice. It is not only P10 who does not self-promote, but also many other colleagues with whom she shares similar reasons for not self-promoting—a group of professionals have been taking care of all promotional work for them. Other than that, I did not find any other evidence that would suggest P10's internal unwillingness to self-promote via social media to be anything but a personal preference.

> *"I don't have social media. I don't like to be in the news. I don't know. They do it. Fine. I do not want to do it. No, I'm quite happy for them to write articles. I don't want to be. No. No. Nope." P10*

P4 does not *"care about"* posting and sharing a newly published article on Facebook. The following quote strongly suggests that P4 does not see her Facebook friends as the right audience for her research. Thus, she was actively positioning her work and managing her target audience by *not* placing or exposing her work on social media. She treasures her research and wants audiences who are genuinely interested in her work to make her feel that her work is honored. P4's pride seeps through the lines. It is important to P4 that people *find* her work when actively searching for a topic that was *"relevant to her paper"*. People's encountering of her work should occur naturally without any solicitation from her part so that her work can be preserved for the right audience with the purest intention and interest to keep contributing to the *"relevant"* research area. She contrasted her Facebook friends with a targeted audience who exhibits immense interest in engaging with her work. To P4, her Facebook friends would be most likely to *not* engage with her work in any depth, thus devaluing her research or at least the act of posting her publication on social media.

"You know, if, if someone's going to find my work, I want them to find it because they're interested in the topic. And and they're doing a search and they come across it in that way. Um, you know, I don't care about telling my Facebook friends that that I published an article. Because that's, you know, that may not be relevant to their area anyway." P4

4.2 Open-mindedness

Open-mindedness is a mindset that participants perceive and practice of citation, especially citation metrics. Women academics generally embrace the availability of citation metrics, but at the same time criticize the limitations and uses of citation metrics. I will start by discussing how women academics view citation metrics as *one* measure and a relative measure, followed by a short description of how journal prestige influencess women academics' experiences of scholar evaluation. I will also discuss how women academics make sense of or gather evidence for impact and the real impact that they perceive is worthwhile to measure. Lastly, I will end the discussion of this superordinate theme with participants' criticism towards citation metrics.

ONE measure

Open-mindedness was showcased in this subordinate theme as participants' willingness to engage with the metrics despite the known limitations and flaws of such measures. Such cautious engagement with the metrics aligns with the academic tradition of taking data *"with a grain of salt"* (P4) in order to make objective, informed conclusions of any data set.

Participants, especially ones who evaluate promotion packages, repeatedly emphasized that citation metrics are *"ONE measure of impact"* (P7). Participants regarded citation metrics as *"ONE thing that you look at in the whole series"* (P1), *"ONE more piece of tool"* (available to evaluate academics' work quality, productivity, and impact. The emphasis on *"one of many ways"* is a clear indication of participants' stances that they do not judge academics' qualifications based solely on citation metrics. Rather, there are other *"tools"* out there that could help with evaluators' decisions regarding academics' work quality and impact. Participants indicate that some alternative measures that they use and appreciate are, for example, reading academics' papers to gauge work quality themselves (P3, P7, P8, P9, P10, P11) and asking for field experts' opinions (P1, P3, P5, P7, P8, P9, P10, P11).

Participants show clear appreciative attitudes towards the availability of citation metrics. As someone who has been in academia for 25 years, P1 had experienced evaluating faculty members both with and without citation metrics. Before citation metrics became a thing, the evaluators would rely on other people's opinions in the form of reference letters justifying whether some faculty members' work had impact in their field or not. Therefore, P1 appreciated citation metrics as one more source of evidence that they could use to piece together academics' impact.

At the same time, participants would also acknowledge that citation metrics are "flawed measures" (P1) that do not capture all the qualities of both the academics and their work. To a certain degree, participants have experienced citation metrics as a compromise because academia lacks better measures of impact.

> *"I think that in academia, we struggle for good ways to be able to evaluate faculty research. And citation has, for whatever reason, become kind of one metrics thrown in that mix. Is it perfect? No, but is it maybe one piece of evidence that can help in an overall evaluation? I think the answer there would be. Yeah." P9*

This seemingly conflicting feeling—simultaneous appreciation and distrust—towards citation metrics reflects academics' critical thinking when it comes to scrutinizing evidence quality. More importantly, it reflects participants' dissatisfaction of how academic impact and contribution are measured.

A Relative Measure

Participants who have experienced citation metrics from both the evaluator and evaluated perspectives were more likely to point out that citation metrics are really a relative measure. Our data revealed three major factors, including information gap, departmental standards, and disciplinary norms, that notably affect participants' understanding of citation metrics.

First, in describing P8's experience of publishing in a medical journal, P8 pointed out the information gap that might affect people's evaluation of paper impact. The medical journal in which P8 published has a journal impact of 5.03, which is higher than the journal impacts of some top marketing journals. *"Marketing people wouldn't necessarily know"* (P8) exactly what an impact factor of 5.03 means in the medical journals. But seeing 5.03 listed on any marketing academics' CV would instantly make the academic look highly accomplished that they are capable of publishing in a journal of high impact.

Second, departmental differences in norms and requirements for tenure and promotion have some influence on participants' understanding of citation metrics. P3 described her shock and disbelief when she was first exposed to other departments' tenure reviewing process. *"Three publications for tenure??! What have they done in six years?!!"* (P3) Clearly, P3 had trouble comprehending the standard, which she perceived as extraordinarily low, to get tenure in that particular department. In addition, her disbelief and surprised feeling reflected a rather *"insular"* (P8) understanding of academics' qualification for tenure and promotion before engaging in other systems of evaluation. This suggests that participants experience tenure measures in relative terms which provokes shock and disbelief when other departments' standards are significantly different. Furthermore, P3's disbelief also reflected her standard for basic requirements in assessing academic tenure qualifications—academic productivity. In her view or her experienced norm, publication count is an important marker of academic productivity. Therefore, it would be shocking to hear about other departments' relatively lower standards.

Third, besides the different departmental and disciplinary requirements for tenure and promotion, academics' citation preference and tendency seem to also differ between disciplines. For example, P11 shared her observed disagreement of citations being objective or contextual between disciplines. *"The professor, uh, in accounting, who is my generation, he has very few citations compared to me, and definitely compared to somebody in economics."* (P11) In P11's experience, the lower citation count was caused by accounting academics' norm to cite very little; whereas academics in economics would cite more profusely. This contrast leads P11 to believe that accounting academics generally would rate the citation metrics as *"contextual"* while the economics academics would see the metrics as *"objective"*. I interpreted her observation of the between-discipline disagreement as a form of in-group favoritism, and favoritism towards norms or standards that work in the in-group's favor.

Journal Prestige

Journal prestige outcompetes citation metrics in cases where participants started their careers without much influence of citation metrics. The availability of online citation metrics and popularization of citation metrics are important markers of career timing which could have affected participants' understandings of citation metrics. Participants like P2, P4, P6, and P7 who started their academic careers close to or after the popularization of citation metrics accepted the competitive purpose of citation metrics early in their careers. In comparison, participants like P1, P3, and P5 were introduced with the evaluative and competitive purposes of the citation metrics at the mid- or established state of their careers.

Participants (P1, P3, P5) started their careers without much influence of citation metrics simply because citation metrics were not available to them at the beginning of their careers, and they showed a stronger tendency to prioritize publication quantity and journal ranking when making hiring and promotion decisions. The quality and impact of their work were evaluated based on reference letters, quantity of publications, and quality of journal which was mainly reflected on journal ranking and prestige.

> *"At the time [there] was not, was not a citation index or anything. But they've just recently started to be counted in scope and stuff […] but most of the time it's still back to journal rankings." P3*

Reliance on journal prestige as a marker of work quality is not an exclusive habit to P1, P3, and P5. In fact, all participants share the experience of examining academics' achievements based on where they publish. The emergence of journal impact factor in a way quantified and solidified academics' perception of journal prestige from an abstract, word-of-mouth ranking to a measurable index that is used as evidence. The pride associated with publishing in high-ranking journals is unconcealable; it is so strong that it is part of P3's system of publication. P3 aims for top journals in the design and in how she conducts her studies.

For many participants, journal prestige reflects publication quality and validity. Yet participants describe the process of publishing in top journals as *"iffy"* (P1), lengthy (P3), a *"hassle"* (P5), *"exhaustive"* (P6), *"divorced from reality"* (P8), and many things in between. All of these imply that publishing in top journals requires high level of scrutiny from both the publishers and academics. To a degree, the line between reasons for feeling proud of publishing in top journals becomes blurry because one cannot distinguish if the participant was proud because of their ability to publish in prestigious journals, their perseverance to push through the review process, or the difficulty of being acceprted in top journals.

Impact

This subordinate theme embodies participants' personal philosophies surrounding their academic careers in terms of what they value as important, meaningful, and fulfilling. After investigating participants' ideal impact, I conclude that participants experience citation metrics as a restrictive system that does not capture the full picture of the type of impact that participants seek to pursue.

Evidence of Impact

Before picturing what characterizes ideal impact for women academics, it is important to discuss how women academics make sense of or realize when their work has made an impact. This subtheme identified four ways that participants estimate their impact or that of others.

First, not surprisingly, citation metrics are *"one way"* that P7 uses to demonstrate that her paper made some impact. In fact, all participants mentioned and debated the use of citation metrics as a measure of impact to some degree. (See subtheme ONE measure for discussion of the debate.)

Second, academics infer their impact through tracing the activities that they engaged in which would have made an impact. For instance, P8 listed many non-academic activities that she does to disseminate knowledge, such as podcasting, publishing in non-academic outlets, presenting her work in various academic institutions, giving talks to public audiences, and so on. P8 refers to these impacts as *"other impact"* that citation metrics cannot capture. In this case, P8 inferred to her *"other impact"* based on the evidence of increased exposure to a broad, diversified group of audiences. Similarly, P7 and P10 account for teaching, seminars, workshops, and other non-academic activities as impact. Participants reportedly feel that they have made some impact with their research by distributing their works to various audiences using channels discussed above.

Nevertheless, participants can still be uncertain whether they have made impact even after accounting for their academic activities. For example, P7 had said: *"I guess it is unclear to me what impact my research has had"* even after listing all the academic and non-academic activities that she took part in to disseminate her work. Was she unclear because knowledge dissemination was not considered as research impact? Or was she not confident that her

research had made some impact? Based on P7's overall demeanor during the interview, my interpretation suggests that P7 was unsure of her impact because citation metrics clearly are not the invincible measure that captures what she considers as research impact; also, she does not have a clear framework or system to pinpoint what research impact exactly entails. Those knowledge dissemination activities, similar to citation metrics, are all "*proxies of thinking about what impact our research had had*" (P7), rather than a direct measurement that captures the impact.

Third, my data suggests that participants value and keep track of impact in terms of meaningful audience interaction with their work and behavior change based on their work. Participants recalled incidences where audiences of their work connected with them and shared personal stories about how their research had changed audiences' thoughts or behavior. To women academics, the active reaching back from audience to academics is a signal of impact. These connections and feedback from the audiences of participants' work and practice are manifestations of something that all participants value—change in how people think and what they do.

> *"So, for me, personally, the impact, where I feel like I've made an impact is when I get an email from a PhD student or a student has become a faculty member, and they say: 'I read your paper in a PhD class. It completely changed how I thought about my research ideas. And I've gone off in this. THAT's impact to me, right? Like, if if I get that, then I feel like I've made an impact." P10*

> *"I got an email yesterday from a journalist who was like, 'I think this has to do with [P11's research topic]. Do you agree?' So, she just wanted to check whether her reasoning was, uh, up to date, which is… That's fun, that's fun. […] It's fun when it has a real impact on the business." P11*

Lastly, participants experienced or recognized impact as a cumulative achievement that academics can only reach when they have worked in their career for long enough. Thus, how long an academic worked or has been working in a field and their reputation while working are strong indicators of academics' impact. Demonstrating impact is a critical evaluation point when academics are assessed to achieve the status of full professor. However, as suggested in the conversation about tenure requirements, impact was not placed under the spotlight as much as other merits such as research quality and productivity, fulfilment of teaching obligation, and other requirements depending on the institution and department at the time when academics are evaluated for tenure.

> *"When you go up for full professor, much more so than when you go up for tenure. You're not so much making the case that you've met the required quantity of publications that you're demonstrating that you have a reputation and that you're having impact." P9*

"It gets used for tenure decisions a little bit, but it's... I don't find it particularly useful at, at early stages of the career. But at a later stage of the career, I do think it's a strong signal of, of people's impact in the field." P10

Valued Impact

Clearly, participants are keeping track of evidence for their impact outside of citation metrics despite the broad claim that citation metrics is a good indicator of impact. I did not start asking participants about their ideals of impact before P7 brought up the discussion of *"actual impact"*, which in her eyes is *"difficult to measure"* (P7) and something that citation metrics cannot capture completely. More specifically, citation metrics might have captured her impact in the literature and in her field; but citation metrics definitely cannot capture her true impact in the form of public knowledge dissemination and in her classroom. It is safe to conclude that that the scope of impact that participants care about is broader than what citation metrics measure. So, what *do* women academics value as impact?

My data suggests that participants value pioneering work and post-research engagement with their work. First, participants view pioneering work as impactful because those works brought changes in the academic dialogue and established new areas for academics to explore and create knowledge. The word—pioneering—encompasses strength, power, and competency. When participants referred to their research as pioneering work, participants' pride and confidence were palpable in their voice and tone of speech. For example, in the quote below, P1 compared her feeling of pride for pioneering with her pride for her publications. *"Establishing those areas"* is P1's *"proudest thing"*, more so than the act or reality of publishing many papers in all the areas that she established. Similarly, other participants had expressed that they are *"proud"* (P6, P11) to be one of the first researchers to publish in a research area, and find the experience *"exciting"* (P2).

"I'm very proud of pioneering. [...] I've published a lot of papers in each of those areas and related areas. But the proudest thing I have is establishing those areas. So now people cite my work as the key work. They need to talk about those areas." P1

Next, participants consider post-research engagement with their work as valuable impact. Such engagement or meaningful interaction with academics' work could be audience-initiated, academic-initiated, or both, as discussed in the *evidence of impact* subtheme. Knowledge dissemination, as a form of post-research engagement between academics and the public, is a shared goal that participants believe in to demonstrate and practice research impact. Of course, publishing research work is one form of knowledge dissemination. But within knowledge dissemination, participants seem to value measures that would bring their work closer to practice. Participants (P7, 8, 10, and 11) have explicitly expressed that they care more about impact in the sense of changing minds and practice, *"non-academic impact"*, *"bridge theory and practice"*, which all extend beyond the scope any publication measurements can capture. Participants demonstrated more positive emotions when talking

about these engagements or interactions, and they speak highly of those experiences as *"fun"* and as *"real impact"* (P11).

Besides reasons for participants to genuinely believe in and value *"non-academic impact"*, participants' disbelief in citation metrics also contributes to participants' preference towards *"non-academic impact"* that citation metrics cannot yet capture. P8 is a disbeliever of citation metrics. She sees citation metrics as an *"insular, circular system"* (P8) that only matters to players involved in the citation *"game"*. *"None of it makes any impact on practice"* might be P8's way of exaggeration, but this phrase does emphasize her standpoint that academic work is facing a very limited, enclosed group of audience—another group of academics.

> *"From a personal philosophical view, I actually don't think they (citation metrics) are that important. Because what, you have a bunch of academics sitting around reading and citing each other's work, and none of it makes any impact on practice? Um, what's, what's the point, right?" P8*

The restrictive, narrowed recipients or her work even further devalues her belief that her work is important.

> *"And I feel a little bit sorry for people who are wrapped up in these metrics. Because at the end of the day, we say, like, what? I'm going to lie on my death bed and say, 'oh, I wish I'd gotten 1 more JCR?' Like, I hope I hope that's not what I think is an important measure of a fully lived and. You know, impactful life." P8*

Participants' disbelief in citation metrics could also be spawned from how academics are citing others. For example, P7 questions and criticizes some academics' behavior of citing before reading. The use of *"even"* in P7's quote below suggests her frustration towards this behavior and reflects P7's expectation that one *should* read before citing any sources.

> *"But some people cite papers they haven't even read; or cite books, they haven't even read." P7*

Moreover, participants tend to value audiences' interactions with their publications or research more because those interactions signal audiences' deeper engagement with academics' works. As an example, P7 describes how her teaching exposes students and engages them in a deeper way than deciphering what a number on citation metrics actually means.

> *"If I have xxx citations of all my work, and a lot of those are in on a couple of papers. But I think about how many students I've taught, right? Where I presented this work. I've got way more students have been exposed to some of my ideas in a much deeper way than maybe some people might have just skim the paper." P7*

I have discussed how participants see citation metrics as *"flawed"* measures because of the design and modeling of how the metrics capture citation. But besides the criticism towards the functionality of the metrics sits another much deeper issue—does the common expectation of the metrics and the way that they are being used in academia match what the metrics actually measure? And why do our participants believe that there is a need to seek alternative measures to capture *"other impact"* besides research productivity?

The Not-so-glorious

Generally, academics view a larger number of citations as a proxy that a paper has reached a large audience, at least in academia. Hence, the broad reach is often auto translated to impact. Is that so? P9 pointed out one thing interesting about citation metrics was that *"sometimes articles can be cited for reasons that maybe aren't great."* Many other participants had also shared a similar side of the story—the not so glorious side of high citations. There are three types of criticisms towards unjustified high citations—getting cited because of study error, authorship, and topic trend.

To start, papers can get cited because the authors have done *"something wrong or they made a point erroneously"* (P9). Arguably, one can view the erroneous point as helping other academics avoid making the same mistake. However, it is still something that citation metrics cannot differentiate, at least for now, from other more legitimate citations. Therefore, participants would discredit citation metrics as measures that capture quality and impact. *"So, you can get a lot of cites for not necessarily writing a good paper."* (P9) Here, P9 made a clear connection between high citations and low-quality papers.

Participants discount high cites from papers that were published when an author was, arguably stereotypically, less likely to have contributed significantly to that paper. P10 gave an example of an academic whose citation count was seemingly large and mainly attributed to one paper that they published during their PhD as the *"fourth author"* (P10). That paper was cited 2,000 to 3,000 times. Yet P10 believed that the paper "*should count, but it shouldn't count as 'wow, this person is amazingly cited'. It's ONE paper.*" (P10) Though P10's emphasis was on the low occurrence of highly cited paper for this academic, P10 still finds it defining enough to bring up the author's ranking on that paper, along with that author's position and career stage at the time of publishing that highly cited paper.

Lastly, aside from the external evaluation of academics' performance, academics judge themselves when their highly cited work does not happen to be the paper that they love and were proud of the most. Participants discount their achievement or impact when a paper is cited highly mainly because the research topic was novel or trendy. For example, P3 described her highly cited paper as less *"profound"* in contrast to a paper that she self-evaluated as *"theoretically strong", "interesting and culturally relevant"*. P3 is even confident that the latter paper would eventually become famous or cited highly.

"And I think it's because it was one of the first that got into look at (research topic). And it was a long time ago. Maybe, gosh, 15 years ago. But it got cited a lot. [It] was more of a descriptive paper. It wouldn't have been a huge theoretical contribution, but because it was new at the time, and people have used it as a base to go on now and study (research area) and 'oh, here's [the] research that was done originally.' So I kind of think it wasn't profound." (P3)

On a side note, P3 again brought up her intrinsic comparison and her conflicted conclusion regarding journal prestige and citation count—her notion that journal prestige did not predict citation count.

"And yet the other paper that was much more descriptive and probably a lesser journal, I don't want to say that exactly, but not as ranked as high as the Journal of advertising got way more citations." P3

Clearly, participants interpret high citation counts differently. By interpreting participants' less preferred reasons to receive high citations themselves or interpret high citations of other academics, we can infer a set of more preferred reasons that participants would like to get cited—getting cited because the audience genuinely believed in their work quality and the paper's potential to develop further into an academic dialogue.

4.3 Identity management

Participants demonstrate a pattern of ongoing self-branding and active management of identities through citation activities. I will explain this theme by exploring who the audiences are for participants' citation decisions, and I will explore the identity management process by delineating self-presentation, disassociation, respect, organic promotion, and exposure. At the end of this section, I will describe participants' lived gender experience to provide more context to understand participants' opinions of the gendered citation studies.

Self-presentation

Self-presentation considerations influence participants' citation decisions, either citing others or citing themselves. The line between appropriate and inappropriate citations is not entirely clear. However, our data suggested that participants seem to agree that relevancy is the minimum acceptance standard of any citation. As for self-citations, all participants agree that as long as the author can prove the connection between the current manuscript and their previous research, or the cited work, there won't be any red flags.

"If somebody's maybe cited a couple, two or maybe three studies that they did previously. And there's and it seems relevant to what's in the lit review. I would be perfectly fine with that of course." P5

"So then if it's relevant to my previous research, then I should cite my own piece." P6

Participants who are more cautious of their self-citation decisions not only adhere to the minimum standard of relevancy, but also appear to adhere to a citation quality evaluation system to determine if their self-citation is acceptable, useful, or essential. Participants' comfort level with self-citing seems to exist on a continuum. On the one end, some are comfortable to self-cite when acceptable, meaning that their self-citation meets the minimum standard of citation appropriateness. For example, when self-citation seems appropriate, P1, P3, and P6 would self-cite without second guessing themselves. On the other end, people who are uncomfortable with the idea of self-citation might only cite themselves when their previous research is absolutely needed and when its absence would cost clarity and quality in the paper. Some participants are in the middle of this continuum, but I will focus on participants who are the most cautious and mindful of their self-citation decisions.

Participants on the uncomfortable side of the self-citation continuum actively manage how they present themselves by consciously scrutinizing and debating whether to self-cite or not, and eventually deciding to not self-cite. I will discuss this connection based on the idiographic cases of P2 and P9 who explicitly stated that they will always "*err on the side of not citing*" themselves. They both acknowledged that their previous work would be relevant to cite in the current manuscript if they choose to self-cite. However, their reasons for citing someone else were drastically different. For P2, not self-citing was an act of self-presentation because she worried about how her audience would perceive the hypothetical self-citations should she choose to cite herself. As for P9, not self-citing was her identity management by disassociating with an unwanted identity. I will discuss P9's case under the subtheme of disassociation.

"Yes. Oh, for sure." P2 responded within a second while nodding profusely when she was asked whether she had experienced situations in which she chose to cite other people's work over hers. The minimal response time and bodily gesture indicated easiness to retrieve memory of related experiences, suggesting that P2 makes this choice quite frequently; or at least, she spends considerable effort making those decisions.

P2 explained her reason to not self-cite was that she does not want to come across as *"boastful"* and *"cocky"*. It seems P2 is worried her audience could interpret her self-citation as dominant and even provocative. How P2 associates self-citation and being *"boastful"* may be a gender congruent behavior because being *"boastful"* might be seen as more positive when acted by a male than by a female.

> *"I think men are more comfortable talking about their accomplishments. And women are not. And often times feel like they have to apologize for them for some weird reason. And so, that comfort level of kind of owning your accomplishments and being confident to say, like, 'this is what I've done and I should be able to cite myself.' I think it's just a kind of a byproduct of the way women are raised to very much be kind of deferential and not boastful, right? It's like, if we boast about our accomplishments then were being bossy or*

aggressive or those different words, right? Whereas when men do it, it's like, wow, they're really taking charge and. And they've done these great things, and they should be really proud of themselves and. I think that's a tough lesson." P2

There were a few exceptions, such as P3 and P6, who completely bypassed this evaluative system and rarely think deeply about it when they self-cite. But all participants actively scrutinized the legitimacy of their citation with or without interviewer probing, especially for self-citation decisions, during interviews.

P2 sees academia as a competitive space where her claiming of scholarly competency would be at the cost of devaluing another scholar. This one-or-the-other approach is an idiographic finding amongst all other participants, who mostly acknowledge the choice of citing both themselves and other scholars. Again, P2's dichotomous view strengthened our analysis because her not self-citing is an act of self-presentation to avoid the conflict or consequence should she choose to self-cite over others.

"You don't want to come in and say, 'well, I can do this, this, this and this and. and you don't.'" P2

The image that P2 portrayed was of a modest female academic who "*just read the room and kind of take the information in*" (P2). P2 described herself as a passive receiver; someone who needs to scout her surroundings for potential challenges and take in what is given to her. The passive state of receiving and the sense of alertness of the environment all suggested P2's belief that there exists a higher power that gives information for her to *"take in"*. P2 felt judged and watched. She clearly cares about how she might be perceived which leads her to actively manage her presented image by choosing to not self-cite unless absolutely needed.

"And I think doing the self-citation is that similar process of, like, trying to figure out whether or not you need that space to include yourself in your own article, right? It's the same kind of feeling where I think a lot of the times. I say, like, 'Oh, you know, that's going to make me look cocky if I include a citation of myself in my own paper." P2

P2 had notably attributed her reluctance to claim space to her identity as a woman. *"You know, as a woman, I've always had an issue with kind of claiming my space, right?"* Something I noted during the interview and the data analysis was P2's frequent use of *"right?"*. It could be nothing but her linguistic habit or a figure of speech. But I interpreted this habit as P2's effort to affirm her argument by asking the shortest question that does not need any answer or response. P2's repetitive use of *"right?"* sets a rhythm for teaching as how an instructor would frequently ask students for signals of understanding. At the same time, it acknowledges and extends power to the audience that they can refute her argument, an option that would not exist if she did not repetitively ask *"right?"* This linguistic habit of P2 aligns with her image as someone who is modestly assertive.

Besides justifying her unwillingness to self-cite with self-presentation motifs, P2 also justified not-self-citing within a social context, rationalizing not-self-citing to her group identity. P2 suggested that, collectively, women are more likely than men to suffer from imposter syndrome, which is a phenomenon that captures people's internal struggle with claiming their accomplishments as achievements made possible because of their gifts and talents (Laux, 2018).

> *"I think that might be more of a, a kind of female approach based on the academics I know, I think a lot of female academics kind of have much more of that imposter syndrome than many of the, and these are broad generalizations of course, but many of the men I know don't suffer from that." P2*

P2's gendered view was echoed by P8 when P8 shared her experience of being a woman in her department. A more focused discussion of participants' gendered experience is in the sub-theme of gendered experience.

Self-promotion

Most participants disassociate themselves from the identity of a self-promoter. At the same time, participants acknowledge that *"there is nothing wrong with self-promotion"* (P4) and that they have seen other people doing self-promoting. Participants associate self-citation behaviors with self-promotion purposes, but only to some degree. This study reveals that participants' lack of motivation, mixed views on the purpose of self-citation, and cultural influence are the main reasons that halt participants' self-promotion efforts.

People generally disassociate themselves with unwanted identities and behaviors to maintain an image that is socially and internally acceptable. In the context of self-citation, P9 discredits self-citation because it conflicts with her belief in healthy academic dialogue which serves the collective purpose of science. The goal of science in P9's view encourages connectedness between academics and their work rather than working solo. In her words, academics are *"continuing to advance and develop on each other's shoulders."* In P9's view, people who self-cite a lot "*fail to appreciate […] diverging perspectives*" and *"miss out"* on opportunities that "*can actually enrich their work and advance it*." *"Fail to appreciate"* suggests that P9 pities people who could have cited other people's work too, and instead only enrich their own views. P9 believes and encourages citation diversity, meaning citing others before considering citing oneself whenever possible. Such outcomes of excessive self-citation conflict with P9's core understanding or expectation of science, which constitutes an important part of her integrity and identity. P9's disbelief in self-citation practices suggests that she views self-citation as something that works against the collective goal of science and as a self-serving act that halts collective academic advancement. Therefore, P9 distances herself from self-citation practices and people who overly self-cite whenever possible.

> *"In fact, I don't work with this person anymore for just one such reason." P9*

P9 ceased working with a colleague after learning that he cites himself a lot. Citation in this case is not just a measure for academic productivity, but more so a measure for academic style, philosophy, and ethics. When these values do not match participants' own standards, participants would choose to disconnect from these people.

Participants also disassociate with (overly) self-citing behaviors and people because they are *"weird"* (P1) and suggest someone who is *"full of themselves"* (P8). Participants generally held a negative view of people who self-cite a lot.

> *"I hate when people overcite themselves. Like, they put every paper they've ever written. That's really weird."* (P1)

In the quote below, P9 justified one of her co-authors' active self-promotion on social media both as a personal preference of the online space and as a career-driven act. Based on P9's justification of the junior faculty member, I conclude that P9 does not see herself as a self-promoter because she does not enjoy deep involvement in the social media space, and because she is not a junior faculty who might be more motivated to promote herself than she does at her current position. Identifying herself as a non-self-promoter instantly placed her far away not only from social media promotional activities, but also self-promotion acts in general.

> *"I have a co-author who's very active in LinkedIn and he is very involved in that space more so than I am. and he's also a junior faculty. So he [has] definitely been more active on social media to promote that. [...] I'm not a big self-promoter honestly. So, I didn't really do much with that." P9*

With external encouragement, academics were *"happy to share"* (P6) their research and found the process of sharing their work on LinkedIn *"fascinating"* (P3). However, when the external push was not present, academics ceased any sharing activities that are *"outside of"* the *"normal academic stuff."* (P1) The unsustainable cycle of push-and -move type of promotion suggests a lack of internal motivation for academics to continue publicizing their work outside of the traditional academic circle.

> *"I just consider that sort of normal academic stuff, so I don't do anything outside of that. I guess, but I never have and I never needed to. So, maybe that's why." P1*

The lack of motivation to increase exposure to their work is particularly evident in the subsample of full professors (P1, P3, P5, P9). These participants have established their academic routine and reached a point in career where added exposure to their work would not bring them much in return in terms of promotion.

> *"You just… You struck me that I was thinking, well, why don't I promote myself more? I mean, it's available today and I'm thinking, well. I have 2 kids, maybe I don't have time*

to bother. But I also, I don't need it. I mean, maybe I will one day, but I don't need it. I'm not looking for a new job and I'm a full professor and I do my I do my research and I stay in the loop kind of thing, but I'm not going up for awards and I'm not going up for a big grant." P3

Participants attribute their reluctance to engage in self-promotion activities to cultural norms. For example, P3 emphasized her years of experience living in Japan. During that period, she embraced part of the Japanese cultural norm in her worldview and identity. *"Green thumb that sticks out gets hammered down."* P3 shared this Japanese proverb during the interview to illustrate her understanding of the collective Japanese culture which discourages individualization and uniqueness. Self-promotion is the practice that emphasizes one's competency to make oneself stand out, which contradicts the collective cultural norm. Thus, P3 believes that neither self promoting nor using self-citation is congruent with her experience and belief that self-citation is not rewarded in a collective identity.

"Maybe it was because I lived in Japan too long. I don't know, but it was such self-promotion that it really seemed so so yeah, odd to me." P3

P3 also pointed out the difference between Canadians' reserved nature in comparison to Americans' culture, which in P3's view is mostly about *"bigger and better."* Both P3 and I were uncertain of the exact chemistry between P3's experiences immersing in all three discussed cultures. But what P3 confirmed was that cultural factors are influential to her understanding and attitudes towards self-promotion.

"I do think that the, the reserved nature that Canadians are known for, in comparison to Americans could also put a slant on my idea of self-promotion. If I'm good, I shouldn't have to self-promote. If my research is good, it should stand for itself." P3

Etiquette

In any given space, there exists a clearly defined or sometimes implicit set of rules to regulate behaviors of anyone who involves or participates in that space. People find it frustrating when a member attempts to self-promote when such behavior violates the shared purpose or explicit rules of that space. Ultimately, the self-promotion behaviors disrespect the purpose and the other members of the space, leading audiences to form negative emotions toward these behaviors and people who act on these behaviors.

To give a specific example, P8 finds it *"tacky"* when people post their own papers in a private Facebook group that she administers. Because to P8, the collective purpose of the space is clear—to advance research in a given topic or field, and not for people to be *"self-serving"*. P8 sees the act of one posting their own article on the public FB group as purposeful and demanding, asking other members to *'go to this journal and find this paper so you can cite it'*. The self-promotors who willfully use this private Facebook space to post their own papers *"don't really get it"*, that the space is not meant to be a *"venue"* or *"mechanism for*

promotion". To be sure, P8 appreciates when she finds papers shared in the private group interesting and thought-provoking that she *"wouldn't have seen otherwise"*. Still, conforming with her belief, she would not promote her work in such an aggressive way because of the reasons discussed above. This suggests academics demand mindfulness and that peers should be considerate of their surroundings and respectful of their audiences. While these might seem to be about academic etiquette, they are also acts of academic citizenship that all scholars should adhere to.

Further, P8 contrasted her preferred mode of online space etiquette based on her observation of a reputable colleague who is prolific but never posts her own articles without some form of knowledge translation or a more deserving reason, such as winning an award, to publicize her work using the public online space. In this case, posting her own work is viewed not as self-promotion, but rather an invitation to celebrate one's achievement.

> *"She would never post her own articles. Like, 'hey, check out this article today that I wrote' because she publishes plenty of things that I've never seen her do that. Unless it was somebody might get an award or something like that. So, you know, or some sort of knowledge translation. So it's much more in the sort of public domain as opposed to 'go to this journal and find this paper so you can cite it'." P8*

The same etiquette applies in an in-person space and context. For example, in P11's opinion, academic conferences are a space where academics get feedback to advance a working paper; they are an inappropriate *"venue"* to self-promote and academics should not present *"papers that are actually published more to market them"*. Here, the shared purpose of conference space that P11 values is to build on each other's feedback to advance knowledge. In contrast, the act of presenting a published paper diminishes the opportunities for the audience to provide feedback since the paper is done. The outcome is static compared to the dynamic outcomes possible by presenting works that are still in progress. Furthermore, P11 later offered several other *"better"* ways to promote papers, confirming our analysis that she regarded conferences as not being the best way to promote academic work. Therefore, she would discredit such acts and avoid doing so herself.

Organic Promotion

This subtheme is important because all participants regard self-citation that is motivated by self-promotion as a strategic behaviour to influence one's career, funding opportunities, and so on. Based on what we learned in this subtheme, we know that some women academics operate in a way that is opposite to the ideals of intentional and strategical planning. Instead, they share the philosophy of non-strategic career progression—the idea that things will fall into the right places without intentional efforts to force any specific outcomes. Organic promotion thus captures participants' trust in the process of moving forward with their work and academic careers without emphasizing and prioritizing strategic promotional activities, such as career intended self-citation.

Organic promotion can be best described using the concept of wu wei, or the actionless action, in the philosophy of Daoism. Participants' favoring organic promotion—a manifestation of wu wei in this context—is demonstrated by participants' career strategy or the lack thereof, attitudes towards other people's strategic behaviors, and identification of strategic and non-strategic behaviors.

The first example of women academics' trust in the organic promotion process is rooted in participants' confidence of their work. I interpreted P1's expression that "*the work is going to promote itself"* as P1's confidence in her work, which she believes is good enough to gather attention even without her effort to promote it, rather than P1's lack of promotional efforts. It is not that P1 wants to avoid the work of promoting, but rather it is P1's lack of reasons and motivations for doing so that stopped her from engaging in promotional activities outside of her recognized *"normal academic stuff"*. In addition, P1's experience that her work gets noticed and achieves favorable outcomes without her promotional efforts is another reason that she tends to not bother with self-promotion. *"They'll find me"* is another strong indicator of P1's confidence of her work. P1 said it with ease and a confirmatory tone, suggesting that her audience will find her and her work eventually. She is not worried about her work not being seen. The word *"find"*describes an active seeking, which suggests that P1 believes her work is important enough that other researchers in this area would need to come to her. P1 self-identified as famous, though she also downplayed her importance by using restrictive adjectives. She is famous in not any field, but *"a very small, tiny field."* P1's effort to manage her portrayed importance is a form of self-presentation which suggests an inner need to portray modesty by pruning descriptions around achievement and accomplishments.

> *"...and that [social media] wasn't really available for most of my career. And so now I kind of feel like… Probably, if I was starting out, I might do that, but now I figure if people just know, they'll, they'll find me. I'm pretty famous in a very small, tiny field. So, people find me usually." P1*

Organic promotion is also demonstrated in P11's illustration of her non-strategic career experiences. P11 contrasted her career with that of her male colleagues, who she described as goal-oriented academics with detailed promotion steps planned throughout their careers. P11 sees these researchers as goal-getters who *"pursue a path very clearly"* and do so *"strategically"*, whereas she is *"happy with how things are turning out"* without *"setting a plan"*. Comparatively, P11's approach to career is a great illustration of wu wei which forgoes any aggressive and wilful style of thinking. To her, the strategic planning of what comes next contradicts her philosophy of following the natural progressing of things. Therefore, she finds grinding for career outcomes tedious and worthless. This negative feeling towards strategy is reflected in her saying *"I got there in the end anyway"*, affirming that P11's successful academic career sort of happened to her rather than being a result of active pursuing.

"I guess my philosophy is, if you, if you do what you enjoy, and if you put great an effort into what you're doing. It will be good, in the end. Does that make sense? So you don't have to be so strategic about that. [You] can also trust that, uh, doing great things will work out in the end. Um, and if you have. So, they [other male colleagues] were a bit more strategic, and I was a bit more... I think we ended up on the same kind of performance in the end, but they were more 'this is where I'm going', whereas I was 'I like this. Let's try this'. And, you know, I got there in the end anyway." P11

Exposure

Participants seem to use the concepts of publicizing and self-promoting interchangeably when asked about what they did to promote their work. Recall that publicizing is about increasing visibility of something or someone and self-promotion is about making oneself look good to others by emphasizing one's competencies and abilities (Bolino et al., 2016). For example, P3 appears to be confusing these terms by advising young scholars to actively promote themselves by posting new publications on social media and self-citing, which are all means that P3 recognizes self-promotion to *"keep getting yourself out there"*. Another example of participants' confusing publicizing for self-promotion would be P1's list of activities that she considers as promotional activities, which includes presentations in conferences and at universities, and updating her new publications on her CV and website. Such activities are about increasing exposure of P1's work. Because P1 did not share anything that would suggest she speaks highly of her work when talking about her research in those events, however, I cannot assume that these are about explicit self-promotion.

I interpret participants' descriptions of their promotional activities as being more about exposure than self-promotion. However, I do not find participants describe their promotional activities in a way that emphasizes their competence and abilities. Therefore, I conclude that the essence of participants' perceived promotional activities is to add exposure to their work. Exposure in this case describes a state of academics or their work being exposed to an audience (individuals or groups of any type).

Based on participants' interviews, participants are generally proud and confident of their work, but not of their ability to attract an audience. I interpret participants' pride and confidence during the interviews as behaviors that attach positive qualities to their self and work, but to an extremely limited audience—the interviewer and the participant herself. Compared to behaviors that emphasize competence and abilities, such as a media coverage and praise of participants' papers, the pride and confidence is closer to a natural expression of participants internalizing and validating their competence and abilities. Comparatively, showing competency suggests that the presenter is suggesting audiences to agree with the presenter that she or he is competent. There was one exception (P4) who was *"hyper-critical"* of herself and who might only find her work worthy of pride when her research met or exceeded her own expectations; so, it was a bit more difficult for P4 to talk about work that she was proud of. However, most participants shared some research that they were proud of

fairly easily. P6 did not conceal her pride of her work at all; she puts it this way: *"I'm proud of every piece of my research."* P1 reflected her belief and practice of being a confident researcher: *"you got to think your work is good, right?"*

Participants are confident and proud of their research and they want more people to read their work, which would increase exposure of their work. But the same people (P1, P6, P7) who demonstrated such motivations are the ones who have been minimally engaging in activities that would help to increase exposure, such as social media involvement or media coverage. *"I kind of do not share anything anymore on my social media"* (P6). Participants' downward tone and gradually diminished volume signaled their diminished confidence to reach a large audience through the aforementioned channels. Though both P1 and P6 were positive throughout the interview; at the moments of the above quotes, P1 and P6 were pessimistic about the outcomes of the exposure management strategies. This interesting contradiction between participants' values and actions could be explained by their lack of confidence either in themselves or in the promotional channels. The sudden lower confidence could also simply be a result of untrust or unfamiliarity to the online platforms.

> *"I could make a Twitter account, and I can say, 'oh, I published a paper'. No one is going to follow me on Twitter, right?" P1*

> *"I think a lot of some academics are getting much better using social media. I'm not very good at using social media." P7*

Participants seem to have less confidence in other online platforms as well:

> *"If we publish anything, then they (the university) will promote our website. But I don't, yeah, I don't think many people are gonna read that [...]" (P6)*

> *"I think my grandmother is the only one who reads my papers. I think that's what I've always thought." (P7)*

Gendered experience

How do women academics feel, experience, and manage their identities as women in academia? I approach this subtheme acknowledging that no one experiences gender identity or any identities in isolation. To carve out experience that participants believe or associate with their gender identity as a woman, I probed participants to answer the following question: "have you experienced any forms of gender discrimination due to your gender?" The following three main viewpoints capture participants' experiences: (1) no experience or awareness of being treated differently because of identity as a woman, (2) awareness of being a victim of gender discrimination, (3) awareness of gender issues but choose to let them go.

First, P1, P5, P9, and P10 do not feel that their identity as women has worked against them in a career context. However, their justifications for not experiencing gender discrimination is

slightly different. P5 and P10 justified this based on their evaluation of career outcomes, that they both have already achieved success in terms of academic positions and promotions. The logic shared by P5 and P10 acknowledges that gender discrimination has the potential to influence one's career negatively: since P5 and P10 perceive their careers as a success, they conclude that their career has not been affected by gender discrimination.

> *"I mean, I was successful in getting published. I, I got tenure, I got promoted. I've been able to hold administrative positions. So, you know, like, I'm just one step below the Dean in the college and so I, from a rank position, I feel like I've been able to succeed. So, I don't feel like that that being a woman was working against me, I felt like. You know, I, I was able to do whatever I, you know, what the goals that I said, I was able to meet them." P5*

> *"I'm going to be senior associate dean in July. […] I'm… I'm sure it's there. I'm sure people feel it. Um, never once today, have I ever felt any kind of discomfort regarding gender and in my… Out there in the real world. Sure. But in the academic world, never, no." P10*

P1 suggests disciplinary environment may be another influential factor that impacts people's perceptions and experiences of gender discrimination. She explains that the interviewer might have a different conversation—one in which women do experience gender discrimination—with academics in the field of engineering. P1 phrases her experience of gender discrimination as zero occurrence, nothing that she knows of, suggesting that gender discrimination might have happened but she either did not pay attention or those incidences are too minor to raise attention. Moreover, P1 suggests that her personality when dealing with discriminations is strong and inviolable, which possibly proactively protects her from perceiving or experiencing gender discrimination.

> *"I've never experienced gender discrimination that I know of, but that could be my personality—I really don't put up with a lot.…in publishing and even becoming an editor, like, I've never felt gender discrimination. Not that I'm saying it doesn't exist. I'm just saying, personally. I haven't and I do feel like in some fields, like engineering. You would be having a very different conversation probably." P1*

Comparatively, P9 attributed her lack of gender discriminated experience to her privilege of working in an institution that prioritizes gender equality. The pro-equality environment protects P9 against gender discrimination; at the same time, the institutional system and her colleagues' pro-equality values mutually encourage and nourish an ecosystem that is less tolerant of gender discrimination.

> *"No, I haven't. I mean. I've always been in such a good place then… [The university] has always been really mindful of gender equality. Since I've been here the university and have that as the top priority. So, I certainly not experienced that." P9*

Despite that P5 and P9 have not experienced gender discrimination themselves, they both report some gender issues they are aware of and learned from other women academics' experiences. Both P5 and P9 point out the gender imbalance in research resources. For example, P5 points out the gender imbalance in high power positions. Based on P5's observation, men still hold higher power positions, while women are the ones who "*who [do] the real hard work that is paid less."* P9 is aware of the gender imbalance in academics' service load because of a shortage of female full professors. As a result, female full professors are *"completely overburdened with service"* which would take a toll on academics' research equity. Based on P9's observation, the pandemic has been disproportionally negatively influencing women academics as compared to men. The fact that the pandemic has allowed many academics to "pause" their tenure clocks might offer an extra year for male academics to *"just pump out additional research"* (P9), but for many women academics, it has been a year of time spent with their families to take care of things around house.

> *"I think that you'll see female scholars step back for years because of the pandemic." P9*

The second category of participants are aware of gender discrimination that they experienced during their academic careers. Under this category, participants share personal experiences of, for example, getting 'mansplained', gender pay gaps, hostile competitive work environments, and inequalities around maternity leaves.

Compared to all other participants, P2 is the one who entertains with her thoughts and experiences of gender discrimination to the greatest extent. P2 goes to great lengths to process her gendered experience through self-analysis, sharing knowledge on gender issues, accounting for her negative experience living through gender pay gaps, and acknowledging the steps that she takes to improve her presence and help her students subdue gender issues in the academy. Living and battling with gender discrimination has become a part of her life and identity made evident because of her clear awareness and self-diagnosis of her gendered behavior, such as not citing herself when she can rightfully do so, or struggling to take up space in career or non-career settings.

> *"And so, the amount of female doctoral candidates in advertising in particular is huge. And so being able to teach them how to self-promote and build their research programs, I think is a huge priority for me. So that there's no shame associated with promoting yourself." P2*

It also comes down to unjustified gender imbalance in research equity that triggers P2's perceived discrimination. In P2's perception, her research committees hold a general belief that *"men will work harder than women"* which results in women being paid less. P2 rationalizes her experience of higher service load compared to men because of institutions' predisposition that women are *"motherly"* and intuitively *"want to take care of students and*

do service work." These assumptions are *"frustrating"* to P2 because they contradict her value and priority on research.

> *"When in reality, you know, we're just as excited about research and publishing as men are, right?" P2*

P8 shares a similar observation with P5 that *"there is a bunch of white men at the top"* whose entitlement to power is evident in the presence of resources. In P8's experience, she had to conform to the rules that were created by and tailored to those *"white men at the top"*, an experience that very much resembles P2's *"take in"* of what is given to her. Monetary incentives shaped her work environment to become more competitive and *"cutthroat"*, turning a previously calm and peaceful work environment to a battlefield for resources.

> *"We got a really large grant a number of years ago, 50 million dollars, and all of a sudden that made a bunch more money available. And so everything just became more competitive and more cut throat and there's a bunch of white men at the top, who decided that they wanted X thing and so you had to conform to that." P8*

P8's perception of how her institution pushed her into conforming to the male-friendly rules bleeds into her experience of working in her department in general. P8 internalizes her gendered experience and concludes that she is expected to be timid and obedient because of her identity as a woman. In her perceived reality, speaking up and disagreeing with a male faculty member would taint her image and portray her as a difficult person. Overall, P8 experiences her identity as a woman as a source of unfair treatment in her career.

> *"I think women are... Basically the messages [were] that you should just sit and not... and be quiet, at least in my school. That you shouldn't be talking that the, you know, that's the unstated implication and that if you do, if you do say something and you disagree with a male faculty member, that you're difficult." P8*

In the third category, a few participants are aware of some gender issues that they might have experienced or observed, but they either can let go of the negative experience very easily or tend to think of the traditionally negative experience, such as service overload, as a sign of progress towards gender equality. For example, compared to the common perception that women are disadvantaged in many career settings, P10 believes that *"it's an advantage right now to be a woman"* today. The fact that women *"get asked to do a lot"* is an unwanted but bearable outcome caused by positively moving towards gender equality. In essence, P10 is appreciative of efforts to fix past discrimination.

> *"Because maybe the disadvantage is that we get asked to do a lot. Because they are trying really hard to make up for years of discrimination. And that is a good thing. Right? Like, we're trying to fix it." P10*

Similarly, P5 is grateful and content with the changing gender dynamics in academia. The use of *"at least"* in the quote below suggests that things could be worse. P5 sees the gender pay gap as an accepted reality. P5 seems to be satisfied by the notion that the university is aware of and looking out for the pay gap instead of ignoring the problem. To P5, it is possible the university could leave the gender issues unaddressed; but because the university did address the issues, beneficiaries of the university's effort, including herself, should be grateful and satisfied with the result.

> *"Women are underpaid relative to men, but at least the university has tried to look out for that." P5*

P7 offers a unique perspective to view gender issues. To P7, gender discrimination is one needle in the ocean of all types of discriminations which she does not have the energy to worry about. She regards the gender discrimination that she experiences as *"microaggressions"* that *"happen all the time"* and something *"not that egregious."* P7 downplays the seriousness of her experienced gender discrimination and exaggerates the frequency (e.g., *"tons of"*) of such experiences to justify her not caring that much about gender discrimination. P7 also disassociates herself as an advocate for gender discrimination or *"someone who really cares that much about it."* I conclude that P7 actively manages where she exerts her energy; caring about gender discrimination is something not worthwhile to her.

> *"Oh, tons! But that's like a topic [by itself]. Yeah, but I also, yeah, of course, like there's tons of... But I also, am also not somebody who really cares that much about it. Like, I don't I don't like it, of course. It's not like it's not that egregious. It kind of can wear you down a bit, but it's not like... [...] I generally we can like let those things go pretty easily. Yeah. And and just kind of move on, right? Because. You know, there [are] a lot of people way worse off than me in the world. So. I, I kind of don't worry about that kind of stuff too much. Like, what, what people talk about is microaggressions those happen all the time. But I just don't I just yeah, I just don't really let them bother me because I just feel like it's, it wastes a lot of energy to worry about them. And so that's for me, I just don't find it a useful use of my time to worry about them that much." P7*

5. Implications

This study adopted Interpretative Phenomenological Analysis (IPA) to study *how do women academics experience citation and self-citation in their careers*. I will summarize the key findings and their implications to individuals, policy makers, and to theory. Lastly, I will discuss the limitations of this study and point out some directions for future research.

I found and presented two important aspects of women academics' experience of citation and self-citation: the nature of women academics' citation experiences, and the function of citation in their careers. Women academics experience citation and self-citation through

connectedness and open-mindedness. Moreover, citation practice is one of many measures that women academics use to manage their identities in a career setting.

The first two superordinate themes—*connectedness* and *open-mindedness*—reflect women academics' making sense of their citation experiences through describing the contextual factors and processes that might have influenced participants' perceptions of citation. The theme *connectedness* reveals that academics experience citation in their careers as a standard, scholarly practice, and as a web of connection that links research, ideas, people, and institutions together. Citation itself is a manifestation of academics' connections and sense of belonging in academia. The subthemes learning and belonging reveal the emotional and personal journeys of participants while web of citation and social media capture participants' use of technology. The theme *open-mindedness* describes the mindset that women academics showcase when they describe citation, especially the function and use of citation metrics. Women academics generally embrace the availability of citation metrics, but at the same time criticize the limitations and uses of citation metrics. Citation metrics are certainly not the only source of evidence that women academics use to evaluate academics, papers, and journals. I found that most participants were frustrated by the gap between what citation metrics measure and the impact they value and believe should be measured. The third theme *identity management* captures participants' active management of identities and describes participants' perceptions of promotion, publicizing, and citation.

5.1 Contribution to Theory

This study sought to contribute to the scientometrics debate about gender issues in citation metrics (Andersen et al., 2019; King et al., 2017). Previous literature suggested that a qualitative approach to scientometrics on this topic was lacking and my study speaks to this gap. The findings suggest that women academics' experience of citation is much broader than the mere calculating and using of citation metrics, but a complex system of women academics balancing intrinsic, extrinsic, and organizational standards of excellence. The data presented women academics' self-citation habits on a continuum from conscious avoidance to complete embracement of appropriate self-citations. Importantly, the findings suggest that self-citation legitimacy is a more influential factor when women academics decide to self-cite or not in comparison to motivation to self-promote. This study highlights the need to broaden the scope when conceptualizing research excellence and academic achievement rather than re-inventing the wheels and creating similar metrics to capture impacts that might not matter to women academics.

This study provides evidence that women academics' citation decisions are partially influenced by the intrinsic need to maintain a certain image or brand in their academic careers or to self-brand. In my review of the personal branding literature, Gorbatov et al. (2018)'s personal branding model, which delineates the trends, drivers, process, and outcomes of self-branding, provides a solid structure to analyze citation and self-citation behaviors as a self-branding action. To start, this study identifies many contextual factors or trends that influence

participants' experience of citation, including the rapidly developing technology, women academics' cultural background, and workplace environment. What drives women academics to cite and self-cite comes from intrinsic need to acknowledge past research and from a field's expectations and norms of how one should cite. Women academics' process of deciding to cite and self-cite fits into Gorbatov et al. (2018)'s summarized cycle of personal branding as well. However, the findings suggest that most women academics have only a vague idea of their brand value proposition. Even though some are more confident than others when it comes to claiming achievements and accomplishments, most participants were unclear what their core personal brand is and appeared uncertain when discussing positioning and promoting activities. It would be interesting to look into the effect of clear self-branding positioning on academics' career outcomes.

The findings also identify that participants' sense-making around citation and self-citation is through a process of self-awareness, self-reflection, positioning and need analysis, and feedback seeking. As suggested by the self-branding model, the goal is to maximize overlapping of the circles of desired self and current or perceived self. In the case of citation, the goal seems to be developing a citation standard that is accepted on the personal, institutional, and field level. Lastly, this study did not focus on investigating outcomes of participants' citation experiences. In women academics' citation practice, the outcome overlaps with feedback seeking and self-reflection processes, which were then internalized and incorporated back to their citation practices. This study also contributes to self-promotion theories by attempting to clarify the boundary between the effects of increased exposure and self-promotion. This study identifies self-promotion as one step up from the mere building of exposure for the self by attaching positive attributes to oneself to increase credibility, likeability, and other positive outcomes.

It is also important to disentangle self-marketing from self-branding. The relationship and difference between self-marketing and self-branding, as the name suggests, resembles the relationship between marketing and branding. Shepherd (2005) distinguished self-marketing from personal branding by suggesting a difference in theoretical origins. Self-marketing encourages individuals to adapt and make changes to the self to meet the target audience requirements. The need to change oneself suggests that self-marketing is more influenced by the customer-oriented approach commonly adopted in the contemporary marketing theories and practices. In contrast, personal branding is defined as "an inside-out process that serves to encapsulate the current strengths and uniqueness of the individual in relation to a targeted market" (Shepherd, 2005, p12), emphasizing people's unique, authentic selves and the ability to self-examine and make oneself special, suggesting that self-branding more likely adopts a product marketing approach. For example, career advisors would encourage job applicants to expand their skill set to improve employability. In comparison, self-branding literature might suggest working with one's current skillset and packaging it to well-targeted audience.

The findings help to explain self-citation based on Shepherd (2005)'s theories of self-marketing and self-branding. My data suggest that all women academics scrutinize the

legitimacy of self-citation before deciding to cite their own work. Violating the need to present oneself as an ethical, competent academic who belongs in the academia could lead to negative consequences in academics' reputation or brand. Because the need to be perceived in a certain way is one of the drivers behind women academics' decisions to self-cite or not, self-citation can be regarded as a self-branding act. Moreover, an appropriate and needed self-citation fits into Shepherd (2015)'s definition of self-branding activity since the act of self-citing itself does not require the academic to adjust the essence of the cited work if it already justifies the link between two papers. However, when a self-citation is not needed or inappropriate, the act of self-citing is more likely to be a self-marketing activity since it requires the academic to re-package the previous work and justify the linkage between the two papers.

My findings offer some potential explanations of the phenomenon in which women are leaving academia at noticeable rates (Overholtzer & Jalbert, 2021; Schiebinger, 1999; Pell, 1996). First, women academics view impact differently than how it is being measured in the academy. The incongruency in perceptions of value and impact creates a gap in what women academics want to do versus what the institution asks of them. In cases where women disbelieve the pursuit of numerical and citation-related success in academia, women might be dissatisfied with their work regardless of whether they choose to conform to the institution's measures of value or to pursue the value they care about: the former choice means that women academics ignore the value they care about; the later choice could possibly cost them promotional opportunities. Further, though not all participants said they would avoid self-citation at all costs, some did explicitly indicate they would minimize self-citation as much as possible. As mentioned in the literature review, self-citation can be the "kiss" to wake up the "Sleeping Beauty" (Van Raan, 2004). As a result, women are losing opportunities to kick start building exposure to their work and positively influencing their citation index, which may negatively impact their career progress and their career trajectory overall.

Many of the participants in this study were dissatisfied or not completely content with academia's dependence on citation metrics as a measure of academic impact. But interestingly, participants did not demonstrate intentions to lobby for change in impact evaluation. Some participants even promoted and appreciated the use of citation metrics in academic references, academic impact evaluations, and career promotions. It seems that women academics have conformed to the reality that citation metrics are a dominant academic impact measure because they are convenient and easy to use. In addition, the cost of lobbying and asking for change is very high for women, given the overabundance of tasks that are required of women (Duch et al., 2012). Lobbying for changes would likely rank the last on women academics' to-do list after life, research, administration duties, teaching tasks, and so on.

5.2 Policy Implications

The process of arriving at the findings and the findings themselves are valuable to individuals, especially those in the early or mid-stages of their careers. Academics of any gender could draw insights to guide self-reflection to make sense of their own experience of citation and re-evaluate the role that citation plays in their research, career, and self-brand. Most importantly, it is beneficial for academics to self-examine their citation decisions and reflect on how these influence themselves and other academics. The findings reflect different levels of self-marketing and self-branding efforts. Interestingly, even in this sample of marketing scholars, some show hesitance towards branding themselves despite knowing the value of branding and marketing. This conflicting gap suggests that self-branding hesitancy could be a gender effect which calls for further research on male academics to compare academics' self-branding motivations and strategies.

The study findings highlight the influence of policy makers and academic administrators on how academics view and practice citation. Specifically, the study findings warn the danger of placing too much emphasis or priority on academics' citation metrics performance, which can affect research authenticity and creativity. It may be beneficial to encourage open dialogue around evaluation measures within and between departments to deeply understand how the chosen metrics work and how each requirement influences academics' motivation, research direction, and well-being at work. Inevitably, institutions need to calibrate their requirements based on institutional value in research and institutional development. Still, it is important to be mindful of how emphasis on citation metrics influence academics and adjust policies accordingly.

Policy makers who aim to advance evaluative metrics could also benefit from this study. Participants' emphasis on nonacademic activities, such as talks or publications in public media—most of which are not yet captured by citation metrics—suggests a need for metrics to progress and for evaluators to see the impact that academics make outside of the academic circle. It is clear from the findings that one major limitation of citation metrics is their inability to capture and credit women academics' valued impact in knowledge dissemination and societal impacts. This limitation may deepen women academics' frustration towards academia because of the perceived biased evaluative system which is unfriendly to their true impact. The findings suggest more research in developing evaluative measures that involve qualitative perspectives and that account for broader impact.

Education around citation practice and its importance in academics' careers is lacking. All participants learned and inferred their system of citation practice outside of a classroom and usually by themselves. It is important for academic administrators and educators to take note of this gap and offer early-stage guidance to help new scholars develop a holistic and wholesome view of citation for academics' career and personal development. A few participants shared their experiences of teaching young scholars academic demeaner and self-

branding strategies, such as online academic platform etiquette, and availability of different platforms to disseminate knowledge and research. Early-stage guidance could help new scholars to navigate the complex academy with less uncertainly and more confidence, making their transition to academia more successful and hopefully more enjoyable.

Policy makers and academic administrators could remove some technical barriers that prevent academics from marketing and branding their works. On the one hand, as some participants revealed, some institutions are equipped with staff and resources to take care of all marketing and branding efforts for academics, meaning academics can focus intensely on research and teaching alone should they choose to not get involved in any publicizing and branding activities. By filling the gap of branding externally, institution could relieve some pressure for academics without forfeiting opportunities to broaden researchers' impact. After all, it is a win-win situation for both the academics and the institutions to increase the impact of academics' works. On the other hand, academic administrators could help their faculty entertain the idea of increasing exposure of their research by participating in the evolving online academic platforms as participants reported they have no interest or do not have the means to use these platforms to their advantage.

5.3 Limitations

This study shares some common concerns of qualitative research, such as researcher bias, difficulty to replicate study, and limitation of sampling. However, the small sample size employed in this study as recommended by IPA does not limit research validity in the same way it would affect a quantitative study. Though I have been mindful of my influence on participants and their responses, I cannot accurately assess the degree of influence or pinpoint each incidence of influencing the participants and their responses. Therefore, the unavoidable researcher presence and influence during research process is one of the major limitations of this study. Another limitation pointed out by a few scholars in the Marketing and Public Policy conference, where I presented a poster of this work, is the lack of comparative cases investigating male academics' citation experiences. Future research should fill this gap and contrast male academics' citation experiences with what was learned from this study about women academics.

6. Conclusion

This study used in-depth interviews to learn about the experiences of eleven women academics' citation practices in an academic career setting. Women academics experienced citations through *connectedness*, in which citation acts as a standard, scholarly practice that links research, ideas, people, and institutions together. Another key characteristic of women academics' experience of citation is *open-mindedness*, which captures women academics' simultaneous embracing and criticizing of the citation system. The findings also capture women academics' self-branding and the lack thereof in the last theme *identity management*. The findings offer insights for individuals, organizations, and administrators to re-evaluate the existing perceptions and implementation of citation metrics. This study calls for more research on academics' personal branding behaviors and their effect on academics' wellbeing and career outcomes. Future research should also investigate relationships between academics' personal branding and institutional branding.

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8. Appendices

A: Recruitment Poster

Department of *Management and Marketing*

University of Saskatchewan

PARTICIPANTS NEEDED FOR

RESEARCH ABOUT *Female Academics' Citation Experiences*

We are looking for female academics who have published five or more papers in peer-reviewed research journals to volunteer in a study about academics' experience of citation.

As a participant in this study, you would be asked to *answer questions about citations in academic writing, your attitudes towards citation metrics, self-citation and other citation-related behaviours. You will also be asked to share your stories and experiences related to this topic.*

Your participation would involve *one online interview* via WebEx, lasting approximately *60* minutes. You can also choose to participate by phone.

For more information about this study, or to volunteer for this study, please contact:

Miao Yu
miao.yu@usask.ca

Or Dr. Maureen Bourassa
bourassa@edwards.usask.ca

This study has been approved by the University of Saskatchewan Behavioural Research Ethics Board

UNIVERSITY OF SASKATCHEWAN | usask.ca

B: Invitation Email

Dear Dr. __,

Hope this email finds you well!

My name is Miao Yu. I am a second-year M.Sc. Marketing student working with Dr. Maureen Bourassa on my thesis project titled "Knowledge Marketing: Learning from Female Academics' Citation Experiences". I am reaching out to you to see if you would be interested in participating in my study :)

The premise of this project is that the academy is a marketplace where each academic acts as an entrepreneur who creates and disseminates knowledge. Citation is an important metric that aids the assessment of academics' performance and productivity. In this case, citation is a common "currency" as it is a universal language spoken by academics all over the world. Learning about how women academics experience and use citations to market and communicate their academic work will greatly contribute to our understandings of women academics' promotion or career strategies and their living situations in the workplace.

I am looking for female marketing academics who work at a research university in Canada or the US; hold Associate Professor or Full Professor position; have five or more publications in peer-reviewed research journals over the past ten years.

The participation will be in the form of an online interview lasting approximately one hour via WebEx. At the end of the interview, we will review a preliminary framework developed based on my data analysis to date. If you have any questions, comments, concerns, or would like to get more details of this research project, you can reach me at miao.yu@usask.ca. Of course, you can also contact my supervisor, Dr. Maureen Bourassa, at bourassa@edwards.usask.ca. This research project has been reviewed and approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board.

I sincerely hope that you would consider participating. Thank you so much for your time and support. I am looking forward to hearing from you.

Best regards,
Miao Yu

C: Consent Form

EDWARDS SCHOOL OF BUSINESS
UNIVERSITY OF SASKATCHEWAN

Participant Consent Form

You are invited to participate in a research study entitled: Knowledge Marketing: Learning from Academics' Citation Experiences

Researcher:
Miao Yu, Master of Science in Marketing, Department of Management and Marketing, Edwards School of Business, University of Saskatchewan, miao.yu@usask.ca

Supervisor:
Dr. Maureen Bourassa, Associate Professor, Department of Management and Marketing, Edwards School of Business, University of Saskatchewan, 306-229-3458 (cell), bourassa@edwards.usask.ca

Purpose and Objective of the Research:
This research explores how women academics experience and rationalize their citation decisions.

Procedures:

- You will participate in an online interview via WebEx, which will be recorded if you agree.
- The meeting will be scheduled at a mutually convenient time. Please do not share the link and password to the meeting with anyone else. The link and password to the meeting are only known to you and the researcher.
- You also have the option to participate by phone. A toll-free number will be generated once the meeting schedule is established.
- No guarantee of privacy of data can be made for WebEx. Here is the link to the privacy policy of WebEx: https://www.cisco.com/c/en_ca/about/legal/privacy-full.html
- Your interview session will last approximately one hour.
- You will be asked to answer questions about your attitudes towards citations in the academy, how you make citation decisions, and your experiences related to citations.
- You cannot make any unauthorized recordings of the interview.

- You may request that the recorder be turned off at any time.
- Please feel free to ask any questions regarding the procedures and goals of the study or your role.
- If you choose, you will have the opportunity to review the transcript of your interview, and to add, alter, or delete information from the transcript as you see fit. The deadline to return the revision of the transcript will be 14 days after you receive the transcription.
- If you would like to receive the results of this study, you may follow up with the researchers to obtain a copy of the final results.

Potential Risks:

- There are no known or anticipated risks to you by participating in this research.
- If any part of your participation in this study has made you feel uncomfortable, distressed, or upset, we encourage you to contact the Employee and Family Assistance Program (EFAP) 306-966-4300, Saskatoon Mental Health Program 306-655-7777, or a counseling service center near you, which can be found using the link: https://www.crisisservicescanada.ca/en/looking-for-local-resources-support/

Potential Benefits:

- By agreeing to be a part of this study, you will contribute to a greater understanding of the influence of citation in women academics' careers.
- Also, you will have the opportunity to talk about and evaluate your citation behavior in-depth, which might bring insights to modify your citation habits should you choose to do so. However, this is not a guaranteed outcome of this study.

Confidentiality:

- The research findings will be organized into a report which might be presented at a conference or published in a peer-reviewed research journal; however, your identity will always be kept confidential.
- Although direct quotations may be reported from the interview, you will be given a pseudonym, and all identifying information including but not limited to your name, email address, position, name of the institution, etc. will be removed from the report.
- The written transcriptions will be stored on a password-protected computer; only the supervisor and researchers will have access to your answers. Consent forms will be stored separately in a locked storage facility. These files will be deleted five years post-publication.

Right to Withdraw:

- Your participation is voluntary, and you can answer only those questions that you are comfortable with.
- You may withdraw from the research project for any reason, at any time without explanation or penalty of any sort.

- Whether you choose to participate or not will have no effect on your position or how you will be treated.
- Should you wish to withdraw, all responses up until that point, whether they are taped or transcribed, will be destroyed and not included in the data. Your right to withdraw data from the study will apply until **March 31, 2021**. After this point, it is possible that some form of research dissemination will have already occurred, and it may not be possible to withdraw your data.

Follow up:

- The researcher will send a summary of the research results to all participants at the completion of this study.

Questions or Concerns:

- Contact the researcher(s) using the information at the top of page 1.
- This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

Oral Consent

I read and explained this Consent Form to the participant before receiving the participant's consent, and the participant had knowledge of its contents and appeared to understand it.

_____	_____	_____
Name of Participant	*Researcher's Signature*	*Date*

A copy of this consent will be left with you, and a copy will be taken by the researcher.

D: Interview Guide

Interview questions

Orienting question

1. Please tell me a little about yourself
    a. Can you briefly tell me about your academic background?
    b. How would you describe/summarize your history of publications?
2. Could you offer an example (or a few) of your work that makes you proud?
    a. How does it make you proud?
    b. What do you do with this work?

Citation

3. When I say the word "citations", what do you think about (What is the first thing that come to mind)?
4. How do citations impact you? (What does citation mean to your life?)
    a. How do citations impact your job?
    b. How much do you care about your citation impact?
5. Are you aware of what your citation impact is? If so, could you tell me about that?
    a. How do you measure or know your citation impact?
    b. How well you think your citation impact represents your contribution to knowledge and to your discipline?
    c. Compared to when you were new to the academia, would you say that now you care more or less about your citation impact? Can you elaborate on that?
6. (meh) Thinking about citation in general, can you tell me about…
    a. When is citation a topic of conversation for you?
    b. Can you tell me the story about a citation conversation that you had with your colleagues and others in the academy?

7. Have you considered or used any measures (strategies) to influence your citation impact?
    a. What are they?
    b. What have been the outcomes of using those strategies?
    c. Were those outcomes as you anticipated?

Self-citation

8. In your field, is it common to self-cite?
    a. Why do you think that is the case?
    b. What do you feel about people who cite themselves often in your field? What do you think of them?
9. What is **your** attitude toward self-citation?

    a. What were the norms and practices you learned about self-citation from your academic training?
    b. What are the norms and practices you have learned about self-citation throughout your academic career?
    c. Personally, would you say that you use self-citation as often as you can, or that you avoid using it as much as possible? Could you elaborate on that?
    d. In what conditions do you think self-citations are justifiable and when are they not?
10. Think about the last time when you cited yourself. Tell me about…
    a. What was the citation about?
    b. Why did you choose to cite yourself instead of other academics?
    c. Do you experience any tension about citing yourself?
11. **Have you ever considered to cite yourself but ended up citing someone else?** Could you tell me about that?
    a. What was the citation about?
    b. Could you briefly describe your thought process from realizing you need a reference to deciding on which one to use?
    c. What was the thing that stopped you from citing yourself at that time?
12. Tell me about what comes to mind when I state the following sentence: **research has shown that women cite themselves less than men do.**
    a. In your experience, does this hold true? Could you tell me more about that?
    b. Why do you think that happens?
    c. In your opinion, should women work towards citing themselves more? Do you think it would help their career? Could you explain your answer a little further?
    d. What are the things that stop women from citing themselves more often?
    e. How would that make you feel if women were encouraged to self-cite more often?
    f. What needs to happen for women to cite themselves more often?
13. Are there any other gender differences or gendered obstacles that you have experienced in your academic life? Could you tell me more about that?
    a. How did you cope with these differences/obstacles?
    b. What else needs to change to improve the situation?

14. Going back to the question that I asked about the work that you felt proud of, how did you promote those work?
    a. Have you thought about promoting those work some more?

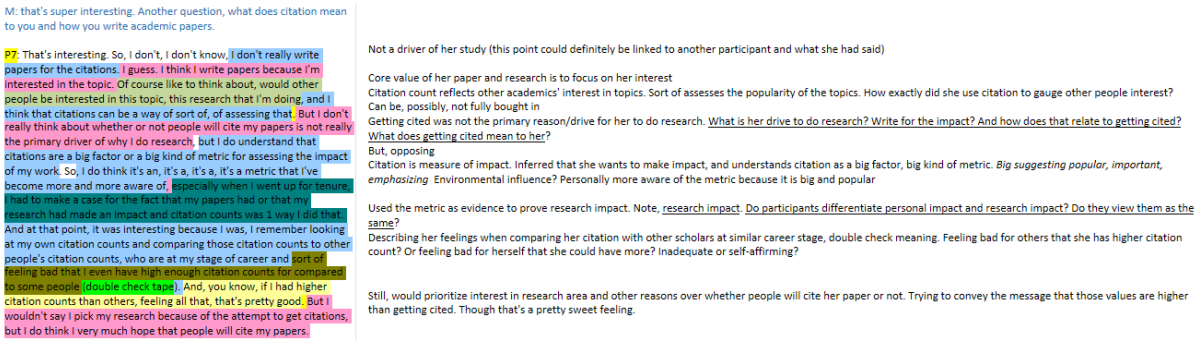
Closing

15. Is there anything else that you would like to talk about or that you expected me to ask during this session?

Demographic Questions

16. Would you describe your university as research intensive, a balanced university (with focus on both research and teaching), or primarily a teaching university?
17. For how many years have you been a professor? (or when did you start your first academic position?)
18. Is there anything else about your background or demographic characteristics that you think are important for me to know?

E: Coding – OneNote Interface



M: that's super interesting. Another question, what does citation mean to you and how you write academic papers.

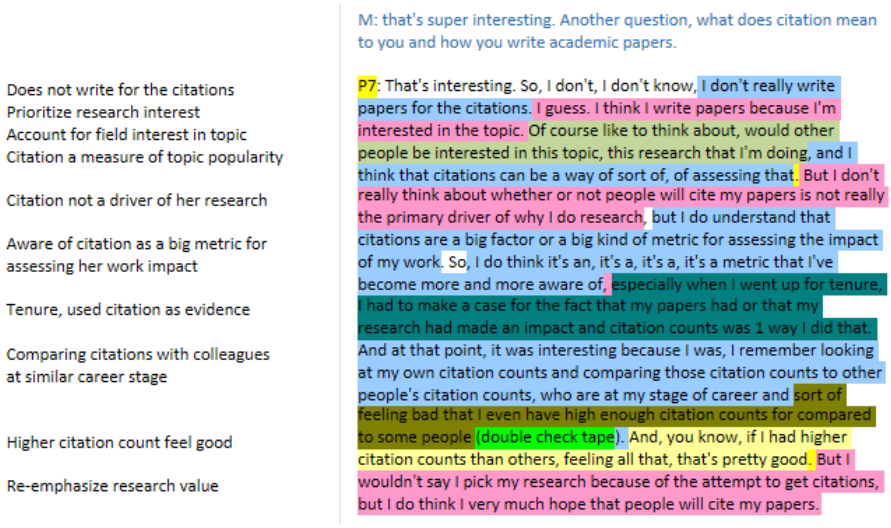
P7: That's interesting. So, I don't, I don't know, I don't really write papers for the citations. I guess. I think I write papers because I'm interested in the topic. Of course like to think about, would other people be interested in this topic, this research that I'm doing, and I think that citations can be a way of sort of, of assessing that. But I don't really think about whether or not people will cite my papers is not really the primary driver of why I do research, but I do understand that citations are a big factor or a big kind of metric for assessing the impact of my work. So, I do think it's an, it's a, it's a, it's a metric that I've become more and more aware of, especially when I went up for tenure, I had to make a case for the fact that my papers had or that my research had made an impact and citation counts was 1 way I did that. And at that point, it was interesting because I was, I remember looking at my own citation counts and comparing those citation counts to other people's citation counts, who are at my stage of career and sort of feeling bad that I even have high enough citation counts for compared to some people (double check tape). And, you know, if I had higher citation counts than others, feeling all that, that's pretty good. But I wouldn't say I pick my research because of the attempt to get citations, but I do think I very much hope that people will cite my papers.

Not a driver of her study (this point could definitely be linked to another participant and what she had said)

Core value of her paper and research is to focus on her interest
Citation count reflects other academics' interest in topics. Sort of assesses the popularity of the topics. How exactly did she use citation to gauge other people interest?
Can be, possibly, not fully bought in
Getting cited was not the primary reason/drive for her to do research. What is her drive to do research? Write for the impact? And how does that relate to getting cited? What does getting cited mean to her?
But, opposing
Citation is measure of impact. Inferred that she wants to make impact, and understands citation as a big factor, big kind of metric. *Big suggesting popular, important, emphasizing* Environmental influence? Personally more aware of the metric because it is big and popular

Used the metric as evidence to prove research impact. Note, research impact. Do participants differentiate personal impact and research impact? Do they view them as the same?
Describing her feelings when comparing her citation with other scholars at similar career stage, double check meaning. Feeling bad for others that she has higher citation count? Or feeling bad for herself that she could have more? Inadequate or self-affirming?

Still, would prioritize interest in research area and other reasons over whether people will cite her paper or not. Trying to convey the message that those values are higher than getting cited. Though that's a pretty sweet feeling.



Does not write for the citations
Prioritize research interest
Account for field interest in topic
Citation a measure of topic popularity

Citation not a driver of her research

Aware of citation as a big metric for assessing her work impact

Tenure, used citation as evidence

Comparing citations with colleagues at similar career stage

Higher citation count feel good

Re-emphasize research value

M: that's super interesting. Another question, what does citation mean to you and how you write academic papers.

P7: That's interesting. So, I don't, I don't know, I don't really write papers for the citations. I guess. I think I write papers because I'm interested in the topic. Of course like to think about, would other people be interested in this topic, this research that I'm doing, and I think that citations can be a way of sort of, of assessing that. But I don't really think about whether or not people will cite my papers is not really the primary driver of why I do research, but I do understand that citations are a big factor or a big kind of metric for assessing the impact of my work. So, I do think it's an, it's a, it's a, it's a metric that I've become more and more aware of, especially when I went up for tenure, I had to make a case for the fact that my papers had or that my research had made an impact and citation counts was 1 way I did that. And at that point, it was interesting because I was, I remember looking at my own citation counts and comparing those citation counts to other people's citation counts, who are at my stage of career and sort of feeling bad that I even have high enough citation counts for compared to some people (double check tape). And, you know, if I had higher citation counts than others, feeling all that, that's pretty good. But I wouldn't say I pick my research because of the attempt to get citations, but I do think I very much hope that people will cite my papers.

F: Mind-mapping